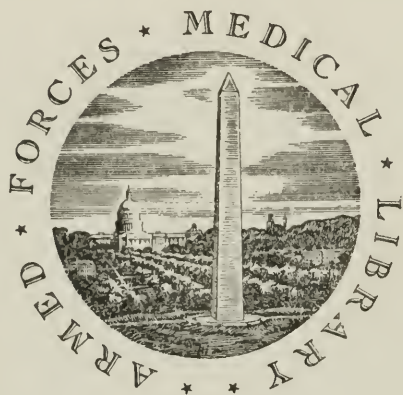


UNITED STATES OF AMERICA



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WASHINGTON, D.C.

FAMILY MEDICAL ADVISER.

GIVING SUCH INFORMATION

ON THE

PRACTICE OF PHYSIC,

AND THE

DISEASES OF WOMEN AND CHILDREN,

AS MAY PROVE USEFUL IN FAMILIES WHEN REGULAR PHYSICIANS CANNOT
READILY BE PROCURED.

SELECTED, ARRANGED AND COMPILED

FROM THE

BEST MEDICAL AUTHORS;

TOGETHER WITH

HIS OWN OBSERVATIONS

IN THE

TREATMENT OF DISEASES, GENERALLY;

TO WHICH IS ANNEXED

ANATOMY, SURGERY, MATERIA MEDICA,

AND

MANY VALUABLE PRESCRIPTIONS.

BEING

A USEFUL COMPANION AND GUIDE

FOR INTELLIGENT HEADS OF FAMILIES, OVERSEERS OF PLANTATIONS AND MANUFACTORIES,
MASTERS OF VESSELS, AND TRAVELLERS.

BY DOCTOR J. BOYD,

PRACTISING PHYSICIAN IN THE COUNTY OF PHILADELPHIA, PA.

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PREFACE.

IT has been my impression for a long time, that a medical work like the present, is much needed in this country. But when I first signified my intention of publishing the following sheets, I was told by my friends that it would draw on me the resentment of the whole medical faculty. As I never could entertain such an unfavourable idea, I was resolved to make the *expériment*, which indeed come out pretty much as I expected. Many, whose learning and liberality of sentiment do honour to medicine, received the book in a manner which at once showed their indulgence, and the falsity of the opinion that every physician wishes to conceal his art; whilst the more selfish and narrow-minded, generally the most numerous in every profession, have not failed to persecute both the book and its author.

The medical profession has opposed, at all times, the publication of works on domestic medicine, and it has been the custom of the public to attribute their opposition to a selfish motive. The projector of the present treatise, however, does full justice to the character of his professional brethren, well knowing the immense sacrifices of time, money and comfort, which they cheerfully encounter in their unceasing and ill-requited exertions to promote the cause of humanity.

It forms no part of the author's intention, to induce an under-estimate of the necessity of medical advice, when such advice can be obtained; but, at the same time, he is not so warmly attached to what may be considered right in the abstract, as to cast aside all considerations of expediency. We must deal with society as we find it; and it is a well-known fact, that even among those who are enabled, both by wealth and location, to command the services of the best practitioners, a very considerable number prescribe, and will continue to prescribe, for themselves and their families, when labouring under complaints which they consider simple, and easily cured. Persons of another and more numerous class, endeavour to elude the payment of fees by adopting the

lie ; let it stand or fall by its own merits. All that is asked for it is a fair examination.

To be true to our original intention, in offering this work to the public, we shall avoid all those arts by which the composers of treatises on domestic medicine have endeavoured to encourage the credulous in the belief, that by a few hours' study, and an occasional reference to a book, they could supersede the necessity of advice from those whose lives and observations are devoted exclusively to the study of disease.

We shall endeavour to engross in the present work such information only, as may be safely and advantageously communicated to the intelligent who are not of the profession, in order to enable them to save human life and suffering where higher assistance is inaccessible or unobtainable in time, without encouraging that rashness which induces the empiric, and certain ignorant professional sectaries, to rush into fearful responsibilities, unnecessarily or criminally. We ardently hope the result of our labours will be such as to leave us chargeable with no follies committed in the sick room under the sanction of our authority.

THE

FAMILY MEDICAL ADVISER.

THE PULSE.

The pulse consists in the alternate contraction and dilatation of the heart and arteries, by which contraction, aided by the force of the heart, the blood is propelled through every part of the body. As the beats of the arteries correspond with the motions of the heart, we judge, by the pulsation of the arteries, of the state of the circulation, and from this we derive many important indications in disease. The frequency of the pulse, in health, is about 72 beats in a minute, or it ranges between 60 and 80; but in some it is slower, without any derangement of the health. The pulse is quicker in women than in men; it is quicker in the sanguine than in the melancholic temperament; in youth, than in age. The pulse of an infant in the first days of its life, is from 130 to 140. During the first year, it is from 108 to 120. From the state of the pulse, taken in conjunction with other symptoms, we judge of the existence of inflammatory complaints, of the state of debility, and of the effects of certain medicines. In feverish complaints it rises to 100, 120, 168, or even to be uncountable. In certain diseases, as water in the chest, it intermits and becomes irregular, and the same effect is produced by the use of the foxglove. In some persons the pulse is naturally intermitting; in others it intermits from disorders of the stomach and bowels, and also from emotions of the mind. The artery generally chosen to ascertain the state of the circulation, is the radial artery, where it is superficially seated in the wrist; but when this is inconvenient, the temporal artery, at the corner of the lower jaw, may be taken. In feeling the pulse, some attentions are requisite. In many, the circulation is quick-

ened by any mental agitation; and, therefore, the entrance of the physician, or his questions and remarks on the patient's case, may quicken the pulse, which should be felt, therefore, both at the commencement and termination of the visit.

RULES OF DIET.

All persons have an interest in the general principles of diet, and however diversified their condition and circumstances, these principles admit of a ready and simple application to all. We shall offer then, for the especial benefit of these persons, some few remarks on diet, the choice of food, and the regulation of meals.

One substantial meal of animal food is sufficient for the daily supply of a man in health, engaged in business involving ordinary labour. The custom, therefore, of taking meat for breakfast, and again at supper, is perfectly unnecessary, and unquestionably pernicious. The principal meal should be taken at about one or two o'clock, so as to occupy about the middle of the waking period. The animal food should consist of one dish only, and that of easy digestion.

Of meats, the perfectly healthy kind, among which the choice is nearly indifferent, or may be determined by individual experience, are beef, roasted or broiled, mutton, lamb, or venison; of poultry, chickens, roasted or boiled, are among the least objectionable; of fresh fish, most descriptions, boiled or broiled, with the exception of salmon, which is too rich; of vegetables, rice and potatoes are the lightest and most nutritious. Peas, beans, and simlins, can be indulged in by most with impunity; and the tomato possesses properties which render it, for a relish, as salutary as it is grateful. Among those articles usually introduced, which are to be received with distrust, are the salted meats generally: such as ham, salted beef, pork, &c. These are objectionable on account of the fat they contain, and the form in which it is presented; but in small quantities, and particularly with the aid of some condiment, such as mustard, or horse-radish, they are borne well.

Fresh pork, whether young or old, is unwholesome to all but hard-working men. The flesh of the goose is oily, and its nutritive qualities not easily extracted, except by a strong stomach. Many meats, however, which are too rich to be eaten alone, are improved by combination with vegetables,

and by the addition of acids and other stimulants. Thus, salad, and even cucumbers, when dressed, assist the digestion of ham or pork; and, on the same principle, a goose may be disposed of with the aid of that well known sauce which is obtained by boiling apples in cider.

Among culinary vegetables, the turnip and onion possess valuable properties which establish their claim to extensive use. The class of preparations termed puddings, have not found much favor in the eyes of the learned; and probably no one of the tribe has been more generally denounced than the dumpling. Yet the experiments of Dr. Beaumont go to show that neither beef nor mutton is so soon disposed of by the human stomach as this same dumpling. We mention this, not to encourage the imprudence of eating them, but to show that the rapidity with which an article is digested in a strong stomach, is no proof whatever of its fitness for a weak one. Water is of course the best beverage. The best substitute, when water is found to encourage the formation of acidity in dyspeptics, is perhaps a little tea, of moderate strength, taken after, not during, the meal. For the morning and evening meals, custom has so fully established the use of coffee and tea, that any attempt at interference would be hopeless. It may be useful, however, in order to determine a choice in doubtful cases, to allude to some of the circumstances by which their respective effects are found to differ from each other. As a general rule, coffee acts more especially on the digestive, and tea upon the nervous system. Coffee, to most persons, is laxative; and it is this effect, the absence of which is missed when its use is first abandoned for that of tea or other liquids. Coffee in any quantity is apt to be followed, in persons of weak digestion, by a peculiar sensation of faintness at the pit of the stomach, occurring about two hours after the meal is taken. It is usually most marked in warm weather, and is accompanied by a sense of debility and relaxation.

Coffee and tea produce wakefulness; but the latter is more certainly followed by this effect. In most persons, tea, especially when taken towards evening, produces a brightening of the intellect, and agreeable sensation of gaiety and cheerfulness, which do not belong in the same degree to the use of coffee. An occasional change from one to the other, is better than a long continued perseverance in either.

COSTIVENESS.

We do not here mean to treat of those astrictions of the bowels which are the symptoms of diseases, as of the cholic, the iliac passion, &c., but only to take notice of that infrequency of stools which sometimes happens, and which in some particular constitutions may occasion diseases.

Costiveness may proceed from drinking rough red wines or other astringent liquors; too much exercise, especially on horseback. It may likewise proceed from a long use of cold, insipid food, which does not sufficiently stimulate the intestines. Sometimes it is owing to the bile not descending to the intestines, as in the jaundice; and at other times it proceeds from diseases of the intestines themselves, as a palsy, spasms, torpor, tumours, a cold dry state of the intestines, &c.

Excessive costiveness is apt to occasion pains of the head, vomiting colics, and other complaints of the bowels. It is peculiarly hurtful to hypochondriac and hysteric persons, as it generates wind and other grievous symptoms. Some people, however, can bear costiveness to a great degree. I know persons who enjoy pretty good health, yet do not go to stool above once a week, and others not above once a fortnight; indeed I have heard of some who do not go above once a month.

Persons who are generally costive should live upon a moistened and laxative diet; as roasted or boiled apples, pears, stewed prunes, raisins, gruels with currants, butter, honey, sugar, and such like. Broths with spinage, leeks, and other soft pot-herbs, are likewise proper. Rye bread, or that which is made of a mixture of wheat and rye together, ought to be eaten. No person troubled with costiveness should eat white bread alone, especially that which is made of fine flour. The best bread for keeping the body soluble is what in some parts of this country is called *meslin*. It is made of a mixture of wheat and rye, and is agreeable to those who are accustomed to it.

Costiveness is increased by keeping the body too warm, and by every thing that promotes the perspiration; as wearing flannel, lying too long in bed, &c. Intense thought and sedentary life are likewise hurtful. All the secretions and excretions are promoted by moderate exercise without doors, and by a gay, cheerful, sprightly temper of mind.

The drink should be of an opening quality. All ardent spirits, austere and astringent wines, as port, claret, &c., ought to be avoided. Malt-liquor that is fine, and of a moderate strength, is very proper. Buttermilk, whey, and other watery liquors, are proper, and may be drank in turns, as the patient's inclination directs.

Those who are troubled with costiveness, ought, if possible, to remedy it by diet, as the constant use of medicines for that purpose is attended with many inconveniences, and often with bad consequences.* I never knew any one get into the habit of taking medicine for keeping the body open, who could leave it off. In time the custom becomes necessary, and generally ends in a total relaxation of the bowels, indigestion, loss of appetite, wasting of the strength, and death.

When the body cannot be kept open without medicine, we would recommend gentle doses of rhubarb to be taken twice or thrice a week. This is not so injurious to the stomach as aloes, jalap, or the other drastic purgatives so much in use. Infusions of senna and manna may likewise be taken, or half an ounce of soluble tartar dissolved in water-gruel. About the size of a nutmeg of lenitive electuary taken twice or thrice a day generally answers the purpose very well. See *Diseases of Child-bed Women*.

INTERMITTING FEVER.

A regular paroxysm of intermitting fever consists of three stages, and may be thus described:

The patient first exhibits evidence of languor and debility, unwillingness to move, and a disposition to yawn on motion, as if aroused from sleep. At this period, the extremities. if

* The learned Dr. Arbuthnot advises those who are troubled with costiveness, to use animal oils, as fresh butter, cream, marrow, fat broths, especially those made of the internal parts of animals: as the liver, heart, midriff, &c. He likewise recommends the expressed oils of mild vegetables: as olives, almonds, pistachios, and the fruits themselves; all oily and mild fruits, as figs; decoctions of mealy vegetables: these lubricate the intestines; some saponaceous substances, which stimulate gently, as honey, hydromel, or boiled honey and water, unrefined sugar, &c.

The doctor observes, that such lenitive substances are proper for persons of dry, atrabiliarian constitutions, who are subject to astriction of the belly, and the piles, and will operate when stronger medicinal substances are sometimes ineffectual; but that such lenitive diet hurts those whose bowels are weak and lax. He likewise observes, that all watery substances are lenitive, and that even common water, whey, sour milk, and buttermilk, have that effect: that new milk, especially asses' milk, stimulates still more when it sours on the stomach; and that whey, turned sour, purges strongly.

examined, will be found cooler than usual, though as yet no change in temperature is obvious to himself. Presently the chill commences, invading the back and then the rest of the body, with a progress which is felt, and described as creeping or crawling. The state of chill, when perfect, is marked by a sense of extreme cold, which demands instant augmentation of all the usual warmth, the nearest possible approach to a fire, and additional clothing, or the protection of a bed; by all which, however, it is but little relieved. At the same time there is a tremor, or shivering. After a certain time, the sense of cold begins to remit, and occasional hot flushes are experienced.

This state of things indicates the approach of the second stage. There are many other appearances and symptoms peculiar to each, or common to all the stages of fever, some of which it will be proper here to notice. In the cold stage, the pulse is frequent, small, and often irregular. In the hot stage, the pulse becomes regular, hard and full, and increases in these qualities, till the sweat begins to break out.

In the sweating stage, the pulse becomes softer and less frequent. The appetite, of course, disappears from the commencement until the conclusion of a paroxysm, and in general, an absolute aversion to food takes its place. Together with this, there is often sickness at the stomach, and vomiting of a bilious matter. This may occur either in the cold or the hot stage, but is most common in the former. Thirst and dryness of the mouth and throat continue during the whole paroxysm, but abate as the sweat flows freely; headache, attended with a peculiar throbbing in the temples, together with pain in the back, and afterwards in the limbs.

The interval between the paroxysms of an intermitting, is a period of comparative health; and the time which elapses between the commencement of successive paroxysms is that which determines the type of the disease. If this period be twenty-four hours, the fever is termed quotidian, or daily; if forty-eight, so that the second paroxysm occurs on the third day, counting from the first, inclusive, it is a tertian; if seventy-two hours, a quartan. Regular intervals are rarely protracted beyond this period.

As respects the remote or external causes of chills and fevers, they are now generally allowed to be marsh miasmata; that is, the exhalation arising from vegetable substances, partially immersed in a moist soil, and acted upon

by the rays of a hot sun, although it frequently happens that febrile miasma appears to be generated independently of this precise combination of causes. Very many of the rivers in our Western and Southern States, on the margins of which spring a luxurious vegetation, especially if their banks are low, and periodically inundated, are favourite haunts of this affection. But there are facts in regard to the salubrity or unhealthiness of river situations, which are difficult to be reconciled with any precise theory; and our own Schuylkill furnishes an example of a river flowing on quietly from year to year in the same channel, and nourishing the same vegetation on its borders, yet in the course of a few years completely changing its character.

Treatment of intermitting fever divides itself naturally into, first, the management during the paroxysm; and secondly, that which is proper during the interval. As respects the former, it is to be observed, the obvious design of nature is to obtain relief by means of the sweating stage. The object of art, then, would be to accelerate, as much as possible, the access of this stage; in other words, to shorten the cold fit; for, when the hot fit is once induced, the sweating is seldom long in following it. To accomplish this object, besides indulging the inclination of the patient for warmth externally, we supply him largely with warm diluent drinks: as hot barley-water, flax-seed infusion, sage or balm tea, &c. Laudanum and camphor are frequently employed to shorten the cold stage. Camphor is what is termed a diffusible stimulant, and therefore well suited to effect the purpose. A teaspoonful of paregoric tincture, which combines the virtues of opium and camphor, may be often given with good effect at the commencement of the cold stage of an intermitting, combined with the sudorifics above alluded to. When much headache is felt from the commencement, and particularly if the patient be troubled by ineffectual retching without vomiting, it is highly proper to give an emetic of a grain of Tartarized antimony, with twenty of ipecacuanha. At the end of twenty-five or thirty minutes, the dose may be repeated, if no emesis be produced; warm water should be taken freely to promote the operation. This dose is proper for an adult. But the most important consideration in intermitting fever, is how to prevent the return of a paroxysm. For this purpose, the Peruvian bark, or its preparations, has been employed almost exclusively from the time its virtues became known

to the civilized world. A modern improved method, by which the use of the bark in substance, has been superseded, is to extract the bitter principle, or quinine, in the form of a sulphate. In exhibiting it, the best rule is to commence its use immediately after the close of the paroxysm, and continue it at intervals of one hour in quotidian, two hours in tertian, and three in quartan ague. In order to secure a proper condition of the system, use some cathartic medicine, if the evacuations are not spontaneously regular. If the case be a protracted one, the liver and spleen almost invariably become diseased; and this state is generally accompanied by a jaundiced hue of the eye. It is then proper to have two doses, of five grains each, of calomel, taken at bed-time on successive evenings, followed by a little oil or salts in the morning, if the calomel does not operate by nine o'clock; this should be done before exhibiting the tonic. When, under the use of quinine, the paroxysms do not cease, but occur at longer intervals, we are gaining ground, and may calculate on success with a little delay. When, on the contrary, the intervals grow shorter, we are losing ground, and may feel assured that some additional treatment is necessary to moderate the violence of the hot stage. The saline draught and the neutral mixture, if there be sickness, and sweet spirits of nitre, given in doses of thirty drops every half hour, will often accomplish the purpose. They should be aided by cold drinks and affusions, or even by the lancet, when the pulse is very high, the skin very hot and dry, and the paroxysm long. Sometimes the intermission is rendered imperfect by the continuance of an obscure, harassing, low fever, through the sweating stage and the interval also. Quinine should not be given under these circumstances until the intermission is rendered complete; which may be generally effected by one or two doses of calomel, as ordered above, and the exhibition, during the interval, of an infusion of Virginia snake root, in the proportion of one ounce to a pint of hot water, a wine-glass full to be taken cold every hour during the interval and the sweating stage.

The powers of quinine and bark are prodigiously increased by the addition of minute portions of sulphate of copper and opium. The following prescriptions we have found capable of arresting a great majority of chills, when given during a single interval; a large portion of the balance

yield after two intervals; and very few, indeed, resist their use after three intervals. The first prescription is intended for those who prefer taking medicine in the form of pills; the second, for those who entertain a disgust for that mode of administration :—

1. Take sulphate of quinine, - - 12 grains.
 sulphate of copper, in powder, - - 2 “
 opium, in powder, - - 2 “
 gum arabic, in powder, - a sufficient quantity.

Make these into a mass with a few drops of water, and divide it into twelve pills. Dose—one pill every two or three hours.

2. Take sulphate of quinine, - - - 12 grains.
 sulphate of copper, - - - 2 “

Put them in a six ounce phial, with two ounces of water, and shake them well. Then add—

- | | | | | | |
|--------------------|---|---|---|---|-----------|
| Elixir of vitriol, | - | - | - | - | 24 drops. |
| Laudanum, | - | - | - | - | 30 “ |

Shake the phial again, and then fill it with water. Dose—a tablespoonful every two or three hours.

The medicine given as ordered above, according to the length of the interval, should be continued till bed-time on the day on which the chill is missed for the first time, and this day should be noted.

There is a strong tendency, in an intermitting which has been checked, to return on the seventh, fourteenth, or twenty-first day. To prevent this disaster, a dose of one or other of the above prescriptions should be taken in the morning, at noon and at night, on each of the days here named, counting from the day on which the paroxysm first failed to appear, viz : the sixth, seventh, and thirteenth. By faithfully following this direction, the patient will very rarely experience another attack for at least six months; which is as long an indemnity as can reasonably be asked by those who continue to reside in an infected district.

Although quinine may be almost with certainty depended on for remedying an attack of intermitting fever, and the system remains secure for a time, continued exposure to the same malaria will again induce it, and even a removal to a more salubrious climate is not always a safeguard. The individual who has frequently suffered, sometimes retains a remarkable susceptibility to the disease for years. In some individuals, simple exposure to cold will often be sufficient to induce an attack. For a while, these relapses are cured

with the same ease as the first attack; but after some time the quinine seems to lose its effect. Under these circumstances, Fowler's solution, an arsenical preparation, has been found a valuable substitute. It is employed in doses of ten drops, taken at intervals; but it is an article altogether too dangerous for domestic use.

BILIOUS FEVER.

A paroxysm of intermitting, as before described, may be considered as a type or model of all febrile affections, to which all bear more or less resemblance. But there is a large class of fevers, in which the regular sequence of symptoms which belongs to the intermitting fails to be observed. The access, it is true, is usually with chill, which is succeeded by a sensation of heat; pain in the head and back, loss of appetite, thirst and restlessness, are also present. But these fevers differ wholly from regular intermitting in the following circumstance. The commencing chill is less violent, and not often attended with absolute rigour or shaking; the hot stage, when fully formed, may continue with little change in the degree of heat for many hours or even days; and there is no regular termination by sweat.

The natural state of the functions, instead of being restored at the expiration of six, eight, or ten hours, oftentimes does not return for as many weeks; but once restored, the whole force of the morbid action is exhausted, and there remains no tendency to a new paroxysm; such is the general character of bilious fevers.

The commencing symptoms of bilious fever have been described. Its approach is insidious, and generally the stage of chill has already been succeeded by heat before it attracts notice. Then the patient is found with flushed face, suffused eyes, hot skin, quick, hard pulse, tongue loaded with secretion, thirsty, very restless, and in the severer cases slightly delirious, yet without other pain than that referred to the head, and an aching sensation in the back and limbs. The disease is seldom allowed to make progress without interference; for experience has so fully proved the utility of attempting to arrest it, and so clearly pointed out the means of so doing, that these means are probably universally resorted to. The relief urgently demanded at this period, is to be gained in a very large proportion of cases by the simple ex-

hibition of an emetic; in a smaller number by the same remedy, preceded by bleeding, and a still smaller, perhaps, by bleeding alone. The latter is most beneficial when it produces free perspiration, and excites vomiting, which it not unfrequently does. The rejection of the contents of the stomach, followed by a free discharge of bile, gives great relief to the head, and serves, in many instances, wholly to arrest and break up the fever. Should the latter not happen, the patient obtains, after some hours, a remission of the symptoms; the pulse becomes slower and softer, the skin more cool, the countenance brighter, thirst less, and the mind clear and tranquil. These favourable changes, when transitory only, are most usually remarked in the early part of the day; towards evening an aggravation again takes place; when this alternation has continued for a few days, one of two things takes place. Either gradual improvement occurs with the recovery of appetite, a natural coolness of the skin, the restoration of the strength, &c.; or the fever changes its type. The return of daily febrile action ceases to be observed, or becomes very slight. The pulse sometimes falls below its natural standard to sixty, or even fifty beats, per minute.

Cleanliness may be justly ranked as first in importance among the duties of a sick room. We do not hesitate to lay it down as a general rule, that there is no state or stage of fever, in which the exposed parts of the person may not be daily washed, the linen about the person daily changed, and the bed daily made. For the mere purpose of washing, slightly tepid water may be used; but there is a refreshing influence in the application of cold water to the face, hands and wrists, during the heat of continued fever, which is sometimes indescribable, and which is not attended with any subsequent ill effect. The mouth and teeth should not be neglected at any period, and as soon as his strength will permit, the patient should be encouraged to attend to them for himself. As respects the neatness of the sick room, the necessity of removing every article which is, or is likely to become, offensive, little need be said. Among the nuisances, however, that are apt to collect in a sick room, and to which too much indulgence is shown, are the phials, boxes, papers, &c., the contents of which are but partially consumed. Let them be banished without hesitation, as soon as their use is discontinued. Ventilation is important at all times and seasons.

No patient of any age should be urged to eat, nor should the nutritious liquids be insisted on, unless by express order of a physician. His food should be cautiously administered to him during convalescence. No rule can be given in regard to the cravings which are felt by a convalescent patient. On one subject connected with the management of the sick room, we must be excused for speaking with some severity. We allude to the admission of unnecessary or improper attendants and visitors into the apartment; not only in fevers, but in the whole range of nervous complaints, even when mild. A practitioner who so far forgets the duties of his station as to raise his voice, or indulge his temper, or annoy the patient with disagreeable conversation, or alarm him by appearing after indulgence in dissipation, whatever be his talent or standing, should be tolerated only when no more reasonable or creditable assistance can be possibly obtained.

Religious services in the sick room should be very short and very quiet. Singing, and especially in concert, is very reprehensible. A clergyman who knows the true duties of his calling, and prefers the true service of his master to the exercise of petty influence, or the gratification of a silly vanity, will always consider the advice of the medical attendant, both with regard to the time and duration of his services.

But what shall we say to the kind friends whose anxiety for the patient induces them to insist on admittance. The face of a friend is often more serviceable than medicine, more invigorating than wine; but the faces of a dozen, are worse than intoxication. Independently of the noise and excitement produced, the mere presence of numbers poisons the very air which the sick man breathes, and renders even the healthy liable to contract disease. This habit of crowding a sick room is chiefly noticed among the vulgar, and is often tolerated by anxious friends, for fear of giving offence. There are two pests of the sick room with which we have no patience. They are of both sexes, but of totally distinct species; though too frequently both are relations of the patient. The first—mild, kind, and actuated by the best of motives—is a soothing and low voice, which flows, however, with an almost ceaseless current; inquires into all the feelings of the patient and all the directions of the physician; begs the former to be of good cheer, and trust in Providence, hoping that every thing is for the best; and states that Mr.

A——, and Mrs. B——, and little C——, all laboured under just such symptoms; that the first was saved from death's door by good Dr. E——, under a totally different course of treatment; that the second seemed to be doing well for a long time under the attending physician, but died unexpectedly on the fifteenth day; and that poor little C—— recovered directly under the use of cayenne pepper and hot baths. The kind friend leaves the room with the assurance that the patient looks very ill, but exhorts him to be of good cheer and hope for the best; quietly breathing in the ear of the nurse or wife: "My dear, it's a very bad case; had you not better call in Dr. E——?"

The other annoyance is of an opposite character. Rough, strong, active, and blustering, according to the sex, they enter the room with a hurried, heavy tread. If of the masculine variety, he accosts the patient in a loud tone, in something like the following terms:—"Come, come; this will never do. You are nervous. You would be well enough if you would but think so, and throw your medicines out of the window." We have suffered less than many from the folly of these friendly homicides; having made it through life a principle of action, always to cause their immediate ejection, or to abdicate ourselves; but having witnessed incalculable suffering from such proceedings, and hoping that a few may be startled by these true pictures, into something like a rational course of conduct, we have sketched them from the memory of former years.

YELLOW FEVER.

The symptoms of the first stage.—Faintness, giddiness, and slight chills; then sudden evolution of intense febrile reaction, with severe pain in the head, inflamed eyes, intolerance of light, dry and burning skin, great thirst, pain in the loins and lower extremities, tongue covered with whitish mucus, or but little altered from its healthy aspect; nausea and vomiting; transient and partial sweats. This stage lasts from twenty-four to sixty hours. The disease sometimes commences with sudden loss of muscular power, and depression of nervous energy; the patient falling down as if stunned by a blow.

Second stage.—With the exception of vomiting, all the symptoms abate; the pulse sinks to the natural standard, the heat of the skin becomes reduced, and the patient finds

himself much relieved. The vomiting however continues: the fluid ejected containing membranous floculi; the desire for cold water is urgent, but when swallowed, is immediately rejected; the skin of the neck and breast acquire a yellow tinge. This stage lasts from twelve to thirty hours.

Third stage.—Pulse sinks; frequent and forcible vomiting; matter thrown up of a black colour, resembling coffee grounds, suspended in a glairy fluid; an acrid or burning sensation in the stomach; diarrhœa of green or black matter; whole surface of a dirty yellow; hemorrhages violent; delirium, insensibility, and convulsions.

Cause.—The effluvium generated by animal and vegetable matters, in a state of putrefactive decomposition, its common, remote cause. Hence its almost continued prevalence in the marshy districts of intertropical regions. This opinion is disputed by many; but a great majority of those whose knowledge on this point is derived from personal observation, maintain its correctness.

Persons arriving in hot climates, where the disease is endemic, are almost exclusively obnoxious to it. Persons having once had the disease, lose, in some degree, their susceptibility to a subsequent attack. The influence of the remote cause is promoted by intemperance, excessive fatigue in the sun, exposure to the damp and cool night air, &c. Black vomit, bilious matter, appears to proceed from sanguineous transudation in the stomach. The liver is torpid and congested, the biliary secretions being deficient. The yellow colour of the skin is probably the result of a vicarious secretion of a bilious matter into the subcutaneous texture.

Treatment.—Much diversity of sentiment exists in relation to the treatment of this disease. It appears, however, that the weight of good authority is in favour of full bleeding, mercurial purgatives, cold affusions, and applications to the head; the free use of mild diaphoretic or acidulated drinks. In the first period of the disease, prompt and decisive bleeding is particularly beneficial in the commencement of violent cases, where the pulse is full and hard.

In the second stage, mild aperients, diaphoretic and cooling drinks; enemata; calomel, with a view to its constitutional and aperient effects; cold affusions, with tonics and stimulants, if the pulse becomes feeble.

In the third stage, stimulants and tonics; enemata. The usual saline diaphoretics are of little or no service in this

form of fever. The vigorous employment of quinine is strongly recommended by some during the remissions. The blood should be drawn in an erect or sitting posture, and in a full stream. In this way, faintness is the sooner induced, and the advantages of bleeding gained, with the least possible loss to the system. The effect of the blood-letting, in reducing the system, is to be immediately followed by a powerful cathartic. An ounce of Epsom salts must be repeated every four hours till full operation is produced. If the salts be rejected, or if the vomiting be severe, a spice plaster should be applied, and lime water and milk (one tablespoonful of each) may be given every five or ten minutes; and the moment the retching is lulled, a dose of fifteen grains of calomel in our country, or twenty in a tropical climate, should be administered. Cold lemonade, half a wine-glassful at a time, may be safely given, after this, for three or four hours; when, if the stomach be composed, and thirst great, cold drinks should be taken freely. Sweet spirits of nitre, forty drops every two hours, in a little water; the infusion of Virginia snake-root, a wine glassful every two hours; and if there be little tendency to the head remaining, the Dover powders, ten grains every three hours; the two latter articles alternated every hour and a half, with some warm tea in the interval, act very powerfully. The mercurial course cannot be attempted by the domestic practitioner under any circumstances, with safety.

TYPHUS FEVER.

Typhus fever is by no means so common a disease as is generally supposed. The term *typhus* is frequently applied to fevers essentially distinct from typhus. Synochous and catarrhal fevers, are often improperly denominated typhus.

Symptoms of the forming stage.—Lassitude, giddiness, and dull pain in the head; a peculiar, uneasy sensation in the stomach; nausea, and sometimes vomiting; want of appetite; thirst; pale and shrunken countenance; tremor of the hands; eyes dull and heavy.

Stage of invasion.—Slight chills; tongue whitish or clammy; entire disgust for food; nausea and vomiting. This stage lasts from six to twenty-four hours. The foregoing sketch applies to typhus in its regular form. Typhus is subject to various important modifications.

The organs most liable to become the seat of inflammation are the lungs, the brain, the intestinal canal, the liver, and the peritoneum. The mucous membrane of the alimentary canal, and the arachnoid of the brain, are the most commonly effected.

Causes of the typhus fever almost peculiar to the cold seasons of the temperate climates. I have seen it during the hottest weather in summer, propagated by a specific contagion; deficient and unwholesome food, and the contaminated air of confined and crowded apartments.

Symptoms.—Free and spontaneous vomiting in the beginning, particularly when it relieves the giddiness, generally indicates a mild course of the disease. Hemorrhage from the nose, about the seventh day, is favourable. Very manifest remissions in the morning are always a good sign. Moderate diarrhœa, during the first days, is favourable; but when it occurs in the later periods of the disease, it is a very bad sign. Great thirst, in the stage of collapse, is favourable; so also is a moist tongue in this stage. The absence of important or violent local inflammations always a good sign. Diminution of the frequency of the pulse, and of the acrid heat of the skin, is favourable. Among the symptoms which are particularly unfavourable, are: great change in the expression of the countenance in the beginning of the disease; entire absence of thirst; constant and violent delirium; and swelling of the parotid glands. The most dangerous signs, in the last stage, are: blindness; involuntary flow of tears; palsy of the tongue; constant low murmuring, and entire abandonment of himself; a very frequent and small pulse; pain in the region of the bladder; tenderness of the abdomen; continued motion of the hands and fingers; hiccough; aphtha in the mouth; suspension of urine, &c.

Treatment.—The first object is to remove, as much as possible, the remote cause, or to lessen its activity. With this view, the patient is to be removed from the confined and contaminating air in which the disease was contracted; or, if this cannot be done, the apartment in which he lies must be freely ventilated. In the forming stage, the indications are: to overcome the torpor of the external capillaries; to determine the circulation to the surface; and interrupt the morbid sympathetic actions throughout the system. For this purpose, emetics are highly serviceable, given soon after the attack of the disease, they will often interrupt its course

After the operation of the emetic, mild purgatives should be employed. Two or three alvine evacuations should be procured daily.

Calomel, in the early stages of the disease, is often decidedly useful. Slight mercurial influence, the most effectual means of rescuing typhus in its early stages—two grains of calomel may be given every four hours, until the gums become slightly inflamed. The constitutional influence of mercury is generally pernicious after the disease is fully developed, its benefits being restricted to the first five or six days. Diaphoretics, beneficial in this and subsequent stages: such as the infusion of boneset, catnip, sage, &c.

The affusion of cold water is often highly useful. As the stage of collapse approaches, the temperature of the water should be raised. Cold affusions are improper when the skin is below the natural temperature, and a sense of chilliness is present, or when there is profuse perspiration. Common salt may be added to the water when there is much prostration.

Bleeding is very rarely called for in cases of simple typhus.

Stage of collapse.—In this stage, stimulants and tonics are the appropriate remedies. Wine, serpentaria, ammonia, opium, ether, camphor, and musk, are the most useful. Of these, wine, ammonia, camphor, and opium, are the best. When stimulants render the pulse fuller and slower, and the skin moist and cooler, they may be continued with confidence; but when the pulse becomes more frequent and corded, the countenance flushed, with an increase of restlessness and delirium, under their use, they are doing injury, and must be discontinued. Camphor, combined with nitre and calomel, is particularly serviceable where there is much delirium.

Diet.—Solid food is injurious; farinaceous and mucilaginous substances are the only nutriments admissible. Barley water, and oat-meal gruel, should be freely allowed in the stage of collapse.

In typhus fever, complicated with local inflammation, bleeding, in the second stage, is often indispensable; it must be early employed; delayed beyond the thirty-sixth hour after the beginning of the inflammation, it will most commonly do harm. Sufficient blood should be drawn at once to make a decided impression on the system. Small bleedings, however frequently repeated, afford no permanent ad-

vantage. Calomel, with opium, is a valuable remedy after proper depletion. One grain of each may be given every four hours. * This remedy is hurtful when the inflammation is seated in the brain.

SCARLET FEVER.

For many years past, this disease has been regarded, in most of the States, as the most dangerous and formidable affection of childhood, where not immediately destructive to life. Scarlet fever often prostrates the nervous power of the system, and lays the foundation for permanent debility.

According to the views of many medical writers, scarlet fever and malignant sore throat, often epidemic, and both specific, are yet to be regarded as distinct diseases, although it is allowed that the latter is generally accompanied with a scarlet rash.

Scarlet fever, when epidemic, does not seem to be dependant for its production on contagion alone. When, however, this source can be traced, it appears to take effect in about three or four days.

The eruption, which is nearly simultaneous with the fever, consists at first of minute red points, soon confounded in a general blush, which extends itself over the whole surface, but is chiefly manifest on the face and breast. The colour of this blush is a bright scarlet, not seen in measles, nor in any other disease. On close examination the small points of the skin will still be found inflamed, and slightly prominent; but the roughness thus produced has not the coarseness felt in measles. The appearance of a full and extensive efflorescence is a favourable sign; for the fuller the eruption, the milder will be the febrile symptoms, and the affection of the throat. The approach of the latter, which may occur as soon, or even sooner than the rash, is marked by a difficulty of swallowing, and sense of soreness. On examination, the tonsils, and the neighbouring parts of the passage, are found swollen and intensely red; and, in a short time, patches of a white or ashy colour are observed, which indicate that ulceration of the mucous membrane has already taken place. As the swelling and ulceration increase, every attempt to swallow is attended with much distress, and frequently liquids taken into the mouth are forced into the nostrils. During this state of the parts, the fever

suffers no permanent diminution and little remission; the thirst is extreme; the skin hot; headache intense; the sleep broken by dreaming; startings, and twitchings of the limbs, and not unfrequently delirium, is present.

Meanwhile the eruptions, perhaps, after fading and re-appearing, finally subside. On the sixth or seventh day of the fever, the whitish sloughs are loosened and thrown off, the ulcers heal, with relief to all the symptoms; and in favourable cases the disease terminates from the sixth to the ninth day. When it is otherwise, death may take place from the violence of the fever at an early period, or the fever may pass into a typhoid state, with a series of symptoms nearly resembling those which have been described under the head of bilious fever, and which may run on for six or eight weeks, though usually with eventual recovery.

Scarlet fever is more frequent in children than in adults; and, among the latter, in women than in men. Its severity and danger, however, both augment with age. It occurs, in general, but once during life; but instances of a second attack are said to be more frequent than in measles.

Treatment.—In treating this disease, as its absolute arrest by any means, is not to be expected, three objects are to be kept in view. 1. To moderate the violence of the febrile action. 2. To subdue those symptoms which immediately threaten life. 3. To counteract debility.

For the first purpose, the principal agent which has been relied upon is, cold, applied externally to the surface by sponging and bathing; and internally, by the use of iced water, and ice itself. Other means of moderating the fever are offered by the administration of the neutral salts, and especially of nitre, which, when swallowed in substance, in small portions, is thought to produce a beneficial local action on the throat itself.

The second object is to be answered, in cases where the inflammation and swelling are excessive, by general bleeding, and the abstraction of blood from the neck, by leeches.

The third is perhaps the most important, as the stage of debility soon arrives, and the condition of the system which accompanies it must be promptly met. As soon, then, as the active fever subsides, if a state of languor, prostration, and debility succeed; if the tongue remain loaded, the bowels torpid, and the spirits depressed; especially if the ulcers refuse to heal, and assume a foul and unhealthy as-

pect, no time is to be lost. Bark, wine, and the acids, must be given internally, gargles of the same character employed for the throat, and every means resorted to for preventing irritation of the digestive system, and supplying it with mild nourishment. The typhoid state, to which we have alluded as a sequel common to this disease, and to measles, is peculiarly protracted and obstinate in children. Sometimes such a degree of debility is induced, that the articulation is wholly lost, the limbs are perfectly paralyzed, and the mental powers prostrated. In this state, it is through the stomach, an organ only a little less weakened than the others, that these are to be slowly re-established. The patience, perseverance, and care, necessary to the task, can only be realized by one to whom the charge has been committed. From day to day the same discouragements are renewed, and it is only after weeks of patient and assiduous labour that hope seems to dawn, and the efforts of affection and duty, once more promise to be crowned with success.

CATARRHAL FEVER.

Symptoms.—At first, lassitude and slight chills; followed by more or less febrile reaction, attended with a frequent, quick, and somewhat tense pulse; severe pain in the head, face, or jaws; sneezing, dry cough, and hoarseness; a watery discharge from the eyes and nose; eyes red and painful; transient stitches through the chest; frequent rheumatic pains in the back and extremities. There are considerable remissions in the morning, and exacerbations in the evening. During the first three or four days, the urine is high coloured and free from sediment. About the fourth or fifth day, the febrile symptoms begin to decline; the urine then becomes pale and turbid, and the bronchia becomes thicker and yellowish. The existence of the latter cause is inferred from the circumstance of this form of fever occasionally occurring epidemically, and extending itself over whole continents, and even passing from one continent to another.

Causes.—Atmospheric vicissitudes; a specific miasma, or a peculiar constitution of the atmosphere. Irritation and inflammation in the mucous membrane lining the respiratory passages, with disordered action of the cutaneous capillaries.

Treatment.—Moderate bleeding in the young and robust; in the aged and infants generally unnecessary, and often im-

proper. Mild laxatives useful in all cases; mild diaphoretic drinks: such as infusion of boneset, sage, camomile, &c.; together with pulvis antimonialis, spiritus mindereri, or spiritus nitre dulce, are important remedies. Blisters to the breast, when the pneumonic symptoms are severe; mild expectorants to relieve the cough.

CHILD-BED FEVER.

So many diseases accompanied with feverish excitement, occur in the puerperal state, that the appellation at the head of this article might be supposed to apply to a great variety of ailments; but medical men wish it to be restricted to a disease of peculiar symptoms, and of great malignity; though they are not all agreed either upon the exact train of symptoms which occur, or upon the method of treatment most successfully pursued in them. In treating of a disease which has been the occasion of much controversy among physicians, it would be quite inexpedient to bring disputed points before the general reader; but we may say a little to quiet the minds and inform the judgments of those who are likely to consult this work. When a woman, within three or five days after delivery, is seized with shivering, followed by heat of skin, thirst, flushing, headache, &c., she need not be apprehensive that she is seized with *puerperal fever*; it may be the milk-fever, which soon abates when the bowels are opened, and when the child sucks freely; it may be from suppression of the lochia, which are often restored by warm fomentations and a dose of castor oil; or a little cold and imprudence in fancying herself too well, may have occasioned the unpleasant symptoms, which although really febrile, do not constitute real puerperal fever. But when a woman has had a comparatively easy labour, when the discharge is moderate, when the milk has begun to flow, when, between forty-eight hours and six days after delivery, she is seized towards evening with cold and shivering, when she afterwards becomes hot and restless, when she loses all care about her child, lately so interesting to her; when she has a fixed pain over the eyebrows, or a feeling of tension, as if a cord were forcibly bound round the forehead, when the pulse is small and quick, when the belly is tender, tense and sore to the touch—then it is time for the friends of the patient to take the alarm, and to get prompt assistance, taking care not

to agitate or distress the patient herself, by showing their anxiety or apprehensions.

Puerperal fever is distinguished by frequency of pulse, oppression, sickness, and headache; by want of sleep, sometimes with delirium; by pain in the belly, slight at first, and afterwards increasing, so that the patient cannot bear the weight of the bed-clothes. The eyes are without animation, the countenance is pale and ghastly, and the whole appearance indicates great oppression and anxiety. The patient commonly lies on her back, and if laid on her side, soon returns to her former posture. Vomiting sometimes occurs very early; and as the disease advances, it is so severe that nothing will remain on the stomach; and there is a discharge of dark coloured fetid matter, resembling coffee grounds. The heat of the skin is not very great, the pulse soon becomes feeble, the tongue is brown, but the patient does not complain much of thirst. At first, the bowels are bound, but there is soon a discharge of fetid, frothy stools. In many cases, neither the milk nor the lochia are suppressed. The patient inquires but little after her child. Soon the strength sinks, the natural evacuations are made involuntarily, the mouth and tongue become foul and dark coloured, delirium takes place, and the patient dies, generally about the fifth day of the disease, though some linger on a little longer. The fever generally attacks on the second or third day after delivery.

No particular circumstance in the labour seems to be instrumental in producing this disease. It comes on after the most natural and easy delivery; it also may come on after a flooding, which has weakened the patient so much, that we might suppose inflammation or fever impossible. The disease, in many cases, is brought on by exposure to cold, premature exertion, irregularities in diet, and agitation of mind.

Puerperal fever occasionally prevails as an epidemic in particular districts; and it has occurred in hospitals, even when regulated, at a time when it has not been prevalent in the city where the hospital is situated. It has also, in some districts, appeared to follow the practice of individual midwives or accoucheurs; all those who have been delivered by certain practitioners for some weeks, having been seized with the disease; while other practitioners in the same city, of equally extensive practice, have not had any case under their care. Many physicians think the progress of the complaint

is so decidedly that of typhus, with inflammation of the peritoneum, that they have not a doubt about considering it as a typhoid peritoneal inflammation; for the peritoneum has often been found inflamed and covered with an albuminous effusion, which has induced the French physicians to call it a deposition of milk, though it has no connection with that secretion.

We have partly, in our introductory remarks, anticipated the mention of some of the particulars which distinguish the true puerperal fever from other febrile affections of child-bed. It is distinguished from inflammation of the peritoneum, occurring under ordinary circumstances, by there being more despondency, general debility, and headache; while the thirst, heat of the skin, and flushing of the face, are less. In common peritoneal inflammation, the pain increases rapidly when it has once begun, and is very much increased by pressure; the attending fever is more inflammatory than typhoid. In inflammation of the womb, there is much pain when that region is pressed; also pain in the back, shooting to the groins; difficulty of voiding urine, and suppression of the cleansings. In puerperal fever, the pain and swelling are most remarkable over the pit of the stomach; and when pressure is made there, a doughy feel is communicated to the hand of the examiner.

In hospitals, the disease is most generally fatal. The earlier the attack, the more tense the belly, and the less complaint the patient makes, the danger is the greater. If the pulse continues at its first frequency, or if it increases, the disease will be likely to prove mortal. If the fomentation of the belly does good, if the pain on pressure is less, if there be an equal, warm, and copious perspiration, our hopes are somewhat better.

The treatment of this fever is a subject of great difficulty. In the early part of the disease, when the strength is not yet greatly impaired, blood-letting should be employed freely. When the disease has lasted several days, and symptoms of debility have come on, then in all probability large bleedings would only hasten the fatal event. Leeches to the abdomen will be proper in nearly all cases; and after their application, if this part continues still painful and tense, covering it with cloths wet with cold water, is a practice strongly recommended by many practitioners. An emetic of ipecacuanha, on the very first appearance of the disease, has seemed

in some instances to check its progress, and in others to render it milder; but on the second, or any subsequent day, emetics are attended with no benefits whatever. From the earliest period of the disease, we are to pay attention to the bowels, and procure regular and free evacuation of them, even by medicines of considerable activity; taking care to prevent and check any exhausting diarrhœa. The laxatives we employ are the compound powder of jalap, or calomel in frequently repeated in pretty large doses, from six to eight grains, three times a day, working it off by infusion of senna, or by neutral salts. A clyster should be early thrown up, and the bowels fomented. We also expect good from an equable and gentle perspiration, which in this disease we may attempt to bring out by Dover's powder, by camphor, or warm sudorifics. The patient may partake of light and easily digested food, as animal jellies, sago, and the like. Such seems to be the safest practice, and in some cases it is successful; but puerperal fever is always to be regarded as a very dangerous disease. When the woman is to recover, the unfavourable symptoms abate but slowly, and the weakness continues long.

When the disease has occurred in hospitals, the lying-in wards should be shut up for some time, after being completely fumigated and whitewashed.

INFLAMMATION OF THE EYE.

The eye is an organ so complicated in its structure, that it is subject to a great variety of diseases. Acute inflammation of the eye, when at all severe, is commonly attended with violent reaction. The fever is generally high, and the case requires the most vigorous general as well as local treatment.

Blood-letting should be freely employed when the constitution of the patient will bear it. It is often advantageous to bleed even to fainting. The diet should be as strict as possible, and both eyes should be positively protected from light. Saline cathartics should be as freely given as the patient's strength will bear. When the iris is inflamed, it may be known by the formation of a narrow redness evidently shining from deeper parts, through the white membrane, in that place where it is thin; by a reddish, dusky, or unnaturally mottled appearance of the coloured membrane of the eye;

by an unusual smallness, and sometimes irregularity, of the pupil; by pain, deep-seated in the ball of the eye; often very intense pain across the front of the forehead, above the eyebrows. In this state of things the mouth must be touched with mercury, by giving a pill of half a grain of calomel and half a grain of opium, four or five times a day. While the general treatment above described is pushed with vigour; omitting all purgatives, for fear of retarding the action of the mercury. When the gums appear a little sore, and the saliva begins to be increased, the mercury must be discontinued; and if the saliva begins to run high, a gargle of borax and sage tea, and a purge of sulphur and cream of tartar, should be given, followed by occasional exhibition of a mercurial pill whenever the salivation appears likely to cease; so as to keep up a gentle action on the mouth for several days.

In inflammation of the front part of the eye, which is much more common, the whole surface of the inside of the lids, and the white part of the ball, are generally reddened. The lids are swelled and puffy, the eye watery, and the edges of the lids, in mild cases, are generally agglutinated in the morning. The pain is commonly superficial, and is of the burning and smarting kind. The general treatment being carried on as vigorously as the violence and rapidity of the case seem to require, the best local measures are the use of the infusion of pith of sassafras and weak lead water. Cold applied to the lids gives great relief. In addition to the general treatment already given, the best plan of local treatment is to apply four or five American leeches directly to the ball of each affected eye, avoiding the clear part. When the leeches are pretty full, cut off a quarter or half an inch of their tails with a very sharp knife, or pair of scissors, disturbing them as little as possible by the operation. They will then continue to suck for a long time, evacuating themselves as fast as they fill; they may be made to fall off quickly by application of salt. After the operation, the eye should be covered with a light, cold bread and milk poultice, containing a little sugar of lead. By this mode of treatment we have generally succeeded admirably well.

BLEEDING FROM THE NOSE.

Bleeding from the nose occurs spontaneously, under a great variety of circumstances, in many of which it may be

regarded as unquestionably a salutary evacuation. We have already noticed its occurrence in catarrh, in which disease it often affords immediate relief to the inflamed mucous membrane. In other cases, the inflammations relieved by hemorrhage from the nose are located in distant parts; as for example, in the throat, the lungs, or the membranes of the brain. The discharge is often of advantage when it supervenes upon local plethora or congestion, such as is produced in the vessels of the brain by close mental application. It is a common occurrence, and often equally advantageous, in children who are undergoing the natural changes which take place as they approach the age of puberty. In violent paroxysms of passion or emotion, and in powerful muscular exertions, the rush of blood to the head would much more frequently occasion apoplexy, were it not that the sudden flow of blood from the nose often comes on and checks the attack. In these cases, hemorrhage from the nose cannot be regarded in the light of a disease, but the amount lost in certain instances becomes in itself a source of immediate danger, and in others the vessels of the mucous membrane becomes debilitated by habit or disease, in such a manner as to lose in part their power of retraction. It is certain, however, that when bleeding from the nose has become purely passive, it will proceed, if not checked by art, till it produces the most alarming symptoms. The quantity lost under these circumstances is sometimes enormous. Eight, twelve, and even twenty-five pounds, have been known to flow before the bleeding stopped.

Treatment.—The bleeding may frequently be arrested by the most simple means. The application of cold to almost any part of the body will produce contraction of the blood vessels; placing a cold body, as a piece of iron or ice, on the neck or back, will often be sufficient. A chill may be induced by the application of ice to the forehead and temple; injections of astringents into the nostrils, have often arrested hemorrhage; and of these, the best is the saturated solution of alum, or a plug of lint steeped into the solution may be inserted in the nostril. The powdered leaves of the St. John's wort has succeeded so admirably in several cases of obstinate bleeding from the nose, that we cannot but recommend it to further notice. I have found bleeding from the arm to be a sure remedy, after all others had failed.

JAUNDICE.

Jaundice is recognized by the yellow hue of the skin, which is most marked on the chest, and which extends itself to the membrane covering the eye-ball, and to the nails. Along with these appearances, the stools will be found more or less clay-coloured; while the urine, on the contrary, is of much deeper tint than ordinary, and communicates a decided yellow tinge to paper or linen. These changes are commonly explained by supposing that the bile secreted by the liver is prevented from getting into the intestines, and that, entering the blood as bile, it is thus carried into the cutaneous vessels, and imparts to the skin its peculiar colour, while the office of conveying it out of the system is transferred for the time to the kidney. It is generally brought on either by imprudence in diet, such as eating fermented, acrimonious, or otherwise indigestible food, by drinking cold water when heated, or by mental emotion. The latter may be either sudden, as a burst of anger or terror, or gradual, as depression and melancholy. Long exposure to external heat produces jaundice. The attack commences with a sense of fullness at the stomach, attended with nausea and pain. To these succeed vomiting, and the rejection of all articles of food or medicine. The pain increases in severity, and shoots towards the left shoulder, or spreads to the loins. The belly is usually distended, and the bowels costive. The deep yellow of the urine in the progress of the malady often changes to a dark red, like the colour of venous blood. Long continued jaundice, however, generally depends on, or is connected with, chronic disease of the liver itself. In this case there is generally no pain, but the digestion becomes deranged, and the strength is gradually impaired. This is the form of the disease which is brought on by long continued residence in hot climates, especially in persons of luxurious habits, and also by frequent attacks of intermitting fever.

Treatment.—The chief object is to stimulate the liver to a healthy secretion. For this purpose, an emetic is usually given at first, which at once excites an increased flow of bile, and causes it to be thrown into the stomach itself. This treatment often produces entire relief. If, however, the jaundiced hue of the skin continues unabated, the emetic must be followed by a cathartic, in which calomel should at least be a part. Five grains of this article, combined with

two or three times the quantity of jalap, forms an excellent purge in cases of this description. The soreness and tenderness on pressure, in the region of the stomach and the liver, may be relieved by some external irritation. A mode of applying this, which has been considered as peculiarly appropriate, is the nitro-muriatic acid bath; prepared by uniting two parts of nitric to three parts of muriatic acid, and diluting the mixture with forty to fifty pints of water. This mixture thus prepared is about as acid as common vinegar, and is sufficiently active to produce slight pricking when applied to the skin. This bath was applied in India (where its use was first introduced) to the whole surface by immersion; but it is sufficient to employ it as a foot bath, and at the same time to sponge with it the surface of the body. Employed locally to the region of the liver, it may be of double the strength above directed; the greatest inconvenience which can follow its use, being a sort of rash upon the skin, attended with some itching and a discolouration of the surface. Most children, when three or four days old, exhibit a yellow state of the skin, for which the officious nurse would promptly administer the saffron or sweet marjoram tea very plentifully, with a view to keep out the yellow gum, and thus torture the child with a distended stomach, more annoying than even the disease itself. Very young children are, however, occasionally subject to such serious derangements of the functions of the liver, as not only to occasion a deep yellow tint of the skin and the whites of the eyes, but also to impart the same colour to the urinary discharges, while the stools are pale or clay-coloured, from a deficiency of bile. The proper distinction between the common yellow skin, which may be said to require no other attention than cleanliness, and the real jaundice, which manifests serious disorder of the internal organs, is this: that the yellow state of the skin in the first affection is unattended by any uneasiness, yellowness of the urine or costiveness; while in the latter, the white of the eye is yellow; the patient is restless, fretful, and vomits frequently, or exhibits symptoms of nausea, and is little inclined to take the breast; the stools, when they occur, are whitish, or clay-coloured; the urine stains the diapers, and very frequently the slightest pressure over the stomach or liver produces pain. This last is an unfavourable sign. The latter train of symptoms will require prompt and skilful treatment. If the child be free from

fever and tenderness in the stomach or liver, two or three grains of ipecacuanha should be given every ten or fifteen minutes, until vomiting is produced; and if the disease should be obstinate, this must be repeated every two or three days, till the stools assume a bilious or dark green colour. Avoid the use of emetics, if there be any marks of inflammation in the stomach, liver or bowels. In any case, however, the bowels must be kept freely open, and the best purgative is calomel, followed by magnesia or castor oil. We are much in the habit of giving a tenth or a twelfth of a grain of calomel, with one and a half grains of the bi-carbonate of soda, and a little powdered gum arabic, every hour, until eight or ten doses have been taken; then if the bowels be not moved with bilious evacuations, we give a teaspoonful of castor oil, or about as much magnesia. Our success with this practice has been so uniform in the course of a few days, that we rarely find it necessary to use any other medicine. It is frequently necessary to repeat the calomel and oil every few days, even after convalescence has commenced, for the purpose of keeping up the healthy action of the liver. The warm bath is very good. Gentle frictions over the whole cutaneous surface are useful. When inflammation of the stomach and liver is manifested by great tenderness under the slightest pressure, with fever and vomiting, accompanied by great anxiety and distressful features, four or five American leeches should be applied to the part; or, if they cannot be procured, an ounce or two of blood should be taken from a vein in the arm or leg. If this do not relieve the affection, spread a piece of leather or muslin, with a layer of blistering ointment as thick as a wafer; then with the blunt edge of your spatula, or knife, scratch a number of furrows in various directions upon the ointment; fill these fissures with spirits of camphor; cover it with book or mull muslin, and apply it with a tolerable tight bandage to the skin over the region of the liver; allow this to remain on about two hours, then remove it; and if the skin appear very red, lay this plaster aside, and dress the part with a soft poultice; repeat this poultice as it becomes cool or dry, and evacuate the blister as soon as it is formed. By this process the patient will experience very little pain from the blister, while the internal disease is very much relieved by it. If a troublesome and debilitating diarrhoea should occur after the disease has existed some days, half a grain of the bi-carbonate of soda, and a

quarter of a grain of Dover's powders, should be given, and repeated every three or four hours, until the irritation of the bowels is allayed, and the diarrhœa arrested. When the jaundice has either been neglected, or has not yielded to the means already directed, two grains of the soda may be given with ten grains of the extract of dandelion, dissolved in a little warm water, two or three times a day. If the little patient should suffer much from flatulence, or spasmodic pains, let three or four grains of assafœtida be dissolved in about the same number of tablespoonsful of warm water, and used as an injection into the bowels; if this does not produce relief, give two or three drops of sulphuric ether, in a teaspoonful of hop tea, keeping up, at the same time, gentle but brisk frictions on the back and abdomen, if the patient can bear them.

ASTHMA.

Asthma rarely appears before the age of puberty, and seems to attack men more frequently than women, particularly of full habit. It seems to depend upon a particular construction of the lungs. The attack is usually preceded by premonitory symptoms: such as drowsiness, headache, itching of the skin, heart-burn, sickness, weight over the eyes, &c. Its attacks are most frequently during the heat of summer, in the dog days, and in general commences about midnight.

It is characterized by inexpressible anxiety, very laborious wheezing and suffocative breathing; great tightness about the chest; countenance bloated and livid, sometimes pale; cold extremities; intense desire for cool, fresh air; incapability of lying down; pulse frequent and irregular; abdomen distended with wind; cough, at first dry; a copious expectoration of viscid mucus occurring in the course of some hours, bringing with it considerable temporary relief. The symptoms remit greatly during the ensuing day. On the next night, however, the fit generally returns. In this manner it often continues for six or seven days, and sometimes much longer. In plethoric habits, the countenance is flushed and turgid during the fit; but in others rather pale and shrunk; in the former, some difficulty of breathing, and wheezing usually remains in the interval; in others the recovery is more complete. On this is founded the common distinction of asthma into the humid pituitous, or catarrhal,

and the dry, spasmodic, or nervous forms. The exciting causes are various: accumulation of blood, or viscid mucus in the lungs, noxious vapours, a cold and foggy atmosphere, or a close, hot air, flatulence, accumulated feces, violent passions, organic diseases in the thoracic viscera, &c.

Treatment.—Bleeding. When the disease arises from the suppression of some habitual evacuation, and is attended with general plethora, blood letting is indispensable. Whenever the pulse is hard and tense, emetics are advantageous. When gastric irritation exists, from indigestible diet, or other causes, purgatives are beneficial; when the bowels are disordered, take chalk, mixed with rhubarb. Narcotics, hyosciamus, stramonium, tobacco, and opium, have been recommended. They are occasionally palliative, particularly in protracted cases. The root of the stramonium is to be cut fine, and smoked in a pipe. Lobelia inflata I regard as decidedly the most valuable remedy we possess for arresting or mitigating the asthmatic paroxysm. My own experience corresponds entirely with that of other practitioners of medicine who have written very ably upon the treatment of this distressing disease. I have known a violent fit of asthma completely allayed in the course of a few minutes by the above treatment. A cup of very strong coffee will often procure much relief; or digitalis, in combination with small doses of opium. Galvanism has of late years been employed with much advantage by Dr. Philips and others. Tonics, such as quinine, carbonate of iron and bitters, with occasional mild cathartics, moderate exercise, and above all a light and digestible diet, with the use of the cold shower bath, are to be used during the intervals of the attacks.

COLDS AND COUGHS.

Colds are caused in all cases by obstructed perspiration. The symptoms are so generally known, that we shall not spend time in enumerating them. It may not, however, be amiss to observe, that almost every cold is a kind of fever, which only differs in degree from some of those that have already been treated of.

No age, sex, or constitution, is exempted from this disease; neither is it in the power of any medicine or regimen to prevent it. The inhabitants of every climate are liable to catch cold, nor can even the greatest circumspection defend them at all times from its attacks. Indeed, if the human body

could be kept constantly in an uniform degree of warmth, such a thing as catching cold would be impossible: but as that cannot be effected by any means, the perspiration must be liable to many changes. Such changes, however, when small, do not affect the health; but when great, they must prove hurtful.

When oppression of the breast, a stuffing of the nose, unusual weariness, pain of the head, &c., give ground to believe that the perspiration is obstructed, or in other words, that the person has caught cold, he ought immediately to lessen his diet, at least the usual quantity of his solid food, and to abstain from all strong liquors. Instead of flesh, fish, eggs, milk, and other nourishing diet, he may eat light bread pudding, veal or chicken broth, panada, gruels, and such like. His drink may be water gruel, sweetened with a little honey; an infusion of balm or linseed, sharpened with the juice of bitter orange or lemon; a decoction of barley and liquorice, with tamarinds, or any other cool, diluting, acid drink.

Above all, his supper should be light; as small posset, or water gruel sweetened with honey, and a little toasted bread in it. If honey should disagree with the stomach, the gruel may be sweetened with treacle or coarse sugar, and sharpened with the jelly of currants. Those who have been accustomed to generous liquors, may take wine whey instead of gruel, which may be sweetened as above.

The patient ought to linger longer than usual in bed, and to encourage a gentle sweat, which is easily brought on towards morning by drinking tea, or any kind of warm diluting liquor. I have often known this practice carry off a cold in one day, which in all probability, had it been neglected, would have cost the patient his life, or have confined him for some months. Would people sacrifice a little time to ease and warmth, and practise a moderate degree of abstinence when the first symptoms appear, we have reason to believe that most of the bad effects which flow from an obstructed perspiration might be prevented. But, after the disease has gathered strength by delay, all attempts to remove it often prove vain. A pleurisy, a peripneumony, or a fatal consumption of the lungs, are the common effects of colds which have either been totally neglected, or treated improperly.

Many attempt to cure a cold, by getting drunk; but this, to say no worse of it, is a very hazardous experiment. No doubt it may sometimes succeed, by suddenly restoring the

perspiration; but when there is any degree of inflammation, which is frequently the case, strong liquors, instead of removing the malady, will increase it. By this means a common cold may be converted into an inflammatory fever.

When those who labour for their daily bread have the misfortune to catch cold, they cannot afford to lose a day or two, in order to keep themselves warm, and take a little medicine; by which means the disorder is often so aggravated as to confine them for a long time, or to render them ever after unable to sustain hard labour. But even such of the labouring poor as can afford to take care of themselves, are often too hardy to do it; they affect to despise colds, and as long as they can crawl about, scorn to be confined by what they call a *common cold*. Hence it is that colds destroy such numbers of mankind. Like an enemy despised, they gather strength from delay, till at length they become invincible. We often see this verified in travellers, who, rather than lose a day in the prosecution of their business, throw away their lives by pursuing their journey, even in the severest weather, with this disease upon them.

It is certain, however, that colds may be too much indulged. When a person, for every slight cold, shuts himself up in a warm room, and drinks great quantities of warm liquor, it may occasion such a general relaxation of the solids, as will not be easily removed. It will, therefore, be proper, when the disease will permit, and the weather is mild, to join to the regimen mentioned above, gentle exercise: as walking, riding on horseback, &c. An obstinate cold, which no medicine can remove, will yield to gentle exercise and a proper regimen of diet.

Bathing the feet and legs in warm water has a great tendency to restore the perspiration. But care must be taken that the water be not too warm, otherwise it will do hurt. It should never be much warmer than the blood, and the patient should go immediately to bed after using it. Bathing the feet in warm water, lying in bed, and drinking warm water gruel, or other weak liquors, will sooner take off a spasm, and restore a perspiration, than all the hot sudorific medicines in the world. This is all that is necessary for removing a common cold; and if this course be taken at the beginning, it will seldom fail.

But when the symptoms do not yield to abstinence, warmth, and diluting liquors, there is reason to fear the approach of

some other disease, as an inflammation of the breast, an ardent fever, or the like. If the pulse, therefore, be hard and frequent, the skin hot and dry, and the patient complains of his head or breast, it will be necessary to bleed, and to give five grains of pulvis antimonialis, or James's powders, every three or four hours, till they give a stool.

It will likewise be proper to put a blistering plaster on the back, to give two tablespoonsful of the saline mixture every two hours, and in short to treat the patient in all respects as for a slight fever. I have often seen this course, when observed at the beginning, remove the complaint in two or three days, when the patient had all the symptoms of an approaching ardent fever, or an inflammation of the breast.

The chief secret in preventing colds lies in avoiding, as far as possible, all extremes either of heat or cold, and in taking care, when the body is heated, to let it cool gradually.

OF A COMMON COUGH.—A cough is generally the effect of a cold, which has either been improperly treated, or entirely neglected. When it proves obstinate, there is always reason to fear the consequences, as this shows a weak state of the lungs, and is often the forerunner of consumption.

If the cough be violent, and the patient young and strong, with a hard quick pulse, bleeding will be proper; but in weak and relaxed habits, bleeding rather prolongs the disease. When the patient spits freely, bleeding is unnecessary, and sometimes hurtful, as it tends to lessen that discharge.

When the cough is not attended with any degree of fever, and the spittle is viscid and tough, sharp pectoral medicines are to be administered: as gum ammoniac, squills, &c. Two tablespoonsful of the solution of gum ammoniac may be taken three or four times a day, more or less, according to the age and constitution of the patient. Squills may be given various ways;* two ounces of the vinegar, the oxymel, or the syrup, may be mixed with the same quantity of simple cinnamon water, to which may be added an ounce of common water, and an ounce of balsamic syrup. Two table-

* Take Mixture of ammonia, - - - - - 5½ oz.

" Oxymel of squills, - - - - - ½ "

Make a mixture; of which take two desert spoonsful often, or when the cough is troublesome. Or—

Take Mucilage of gum arabic, - - - - - 5 oz.

" Oil of sweet almonds, - - - - - 1 "

" Syrup of Tolu, - - - - - ½ "

" Solution of sub-carbonate of ammonia, - - - - - ½ drn.

Make an emulsion, of which take one tablespoonful frequently.

spoonful of this mixture may be taken three or four times a day.

A syrup made of equal parts of lemon juice, honey, and sugar candy, is likewise very proper in this kind of cough. A tablespoonful of it may be taken at pleasure.

But when the defluxion is sharp and thin, these medicines rather do hurt. In this case, gentle opiates, combined with diaphoretics, oils, and mucilages,* are more proper. A cup of an infusion of poppy leaves, and marsh-mallow roots, or the flowers of colts foot, may be taken frequently; or a teaspoonful of paregoric elixir may be put into the patient's drink twice a day. Infusion of boneset is also a very proper medicine in this case, and may be taken in the quantity of a teacupful three or four times a day.

In obstinate coughs, proceeding from a flux of humours upon the lungs, it will often be necessary, besides expectorating medicines, to have recourse to issues, setons, or some other drain. In this case I have often observed the most happy effects from a Burgundy pitch plaster applied between the shoulders. I have ordered this simple remedy in the most obstinate coughs, in a great number of cases, and in many different constitutions, without ever knowing it fail to give relief, unless there were evident signs of an ulcer in the lungs.

About the bulk of a nutmeg of Burgundy pitch may be spread thin upon a piece of soft leather, about the size of the hand, and laid between the shoulder blades. It may be taken off and wiped every three or four days, and ought to be renewed once a fortnight or three weeks. This is indeed a cheap and simple medicine, and consequently apt to be despised; but we will venture to affirm, that the whole *materia medica* does not afford an application more efficacious in almost every kind of cough. It has not indeed always an immediate effect; but, if kept on for some time, it will succeed where most other medicines fail.

The only inconvenience attending this plaster is the itching which it occasions; but surely this may be easily borne

* Take Solution of the acetate of ammonia,	-	-	-	3 drs.
" Mucilage of G. acacia,	-	-	-	1 oz.
" Syrup of Tolu,	-	-	-	1 dr.
" Tincture of opium,	-	-	-	25 drops.

Make a draught; to be taken at bed-time. Or—

Take Compound powder of ipecacuanha,	-	-	-	10 grs.
Make a diaphoretic powder.				

with, considering the advantage which the patient may expect to reap from the application; besides, when the itching becomes very uneasy, the plaster may be taken off, and the part rubbed with a dry cloth, or washed with a little warm milk and water. Some caution indeed is necessary in discontinuing the use of such a plaster; this, however, may be safely done by making it smaller by degrees, and at length quitting it altogether in a warm season.*

But coughs proceed from many other causes besides fluxions upon the lungs. In these cases the cure is not to be attempted by pectoral medicines. Thus, in a cough proceeding from the foulness and debility of the stomach, syrups, oils, mucilages, and all kinds of balsamic, do hurt. The *stomach cough* may be known from one that is owing to a fault in the lungs by this, that in the latter the patient coughs whenever he inspires, or draws in his breath fully; but in the former that does not happen.

The cure of this cough depends chiefly upon cleansing and strengthening the stomach; for which purpose gentle emetics and bitter purgatives are most proper. Thus, after a vomit or two, the sacred tincture, as it is called, may be taken for a considerable time, in the dose of one or two table-spoonsful twice a day, or as often as it is found necessary, to keep the body gently open. People may make this tincture themselves, by infusing an ounce of *hiera picra* in an English pint of white wine, letting it stand a few days, and then straining it off for use.†

In coughs which proceed from a debility of the stomach, the Peruvian bark is likewise of considerable service. It may either be chewed, taken in powder, or made into a tincture along with other stomachic bitters.

A *nervous cough* can only be removed by change of air, and proper exercise; to which may be added the use of gentle opiates. Instead of the saponaceous pill, the paregoric elixir, &c., which are only opium disguised, ten, fifteen, twenty, or twenty-five drops of liquid laudanum, more or less,

* Some complain that the pitch plaster adheres too fast, while others find difficulty in keeping it on. This proceeds from the different kinds of pitch made use of, and likewise from the manner of making it. I generally find it answers best when mixed with a little beeswax, and spread as cool as possible. The clear, hard, transparent pitch answers the purpose best.

† In the state of the stomach productive of this particular kind of cough, beneficial effects are derived from small doses of ipecacuanha. A person may begin with taking one grain at noon, and another at night, gradually augmenting the dose till it occasions some degree of nausea.

than formerly, and that cold produces cough. These aggravations may still be relieved, and no alarm or anxiety experienced. The cough, thus increasing and remitting, is often unattended for a long time by any expectoration whatever. But at length it becomes more constant, and is attended with the raising of phlegm from the lungs, especially in the morning. The discharge by degrees alters its appearance, becoming more abundant, and at length, yellow or greenish, and of a corrupted appearance. As these changes advance, the breathing becomes more difficult than before, and emaciation and weakness increase. Many of the natural secretions are now checked; and females particularly perceive a change of system, which is, in reality, the effect of pulmonary disease, though often regarded by themselves as the cause of the cough. Up to this period, the pulse may not have been materially affected; but feverish symptoms now begin to manifest themselves by the occurrence of a slight chill, or, at least, a feeling of chilliness towards evening. This is the commencement of hectic fever. It is soon found that the fever comes on at regular periods, and that two paroxysms occur in the course of every twenty-four hours, with equally well marked symptoms. The morning fever comes on about noon, the patient at this time experiencing rather heat than chill, with a flush in the cheek, which, as the disease advances, becomes one of its most striking characteristics. Some remission then follows; but in the evening, another paroxysm succeeds, in which the cold stage is decidedly predominant, so that the patient always requires an increase of clothing. This chill is followed, particularly towards the termination of the disease, by very abundant sweats, which, however, are never accompanied by any sensation of warmth. These night sweats, as they are called, form another of the prominent marks of consumption. In the progress of the disease, a pain in one or the other side is felt, and becomes nearly constant; this is aggravated by cough, and by particular positions of the body. Spitting of blood, burning heat in the palms of the hands and soles of the feet, are symptoms, which always show themselves in the course of the disease. As the case approaches a fatal result, the tongue is observed to become peculiarly clean, red, and shining, the eyes assume a pearly lustre, and the feet swell.

Treatment.—One of the most important remedial measures in every variety of the disease, is, to restore and maintain the

regular action of the cutaneous exhalents. This is done by wearing flannel next the skin, by minute doses of tartarized antimony, and by avoiding atmospheric vicissitudes. We must also endeavour to remove every source of irritation, and prevent, as much as possible, an inflammatory condition of the system. With this view, a strictly antiphlogistic regimen is to be enjoined, together with occasional small bleedings, where the pulse demands it, the use of digitalis, and mild aperients, with gentle exercise on horseback, or in a carriage. Another important measure is, to divert, as much as practicable, the undue determination of blood to the pulmonary system, by means of blisters, cupping, and tartar emetic ointment, applied to the breast. Balsam copaiva is an excellent remedy. The inhalation of tar has of late years been much extolled in the cure of consumption. Stramonium and pulverized ipecacuanha, in the proportion of one-fourth of a grain of the former, with two grains of the latter, taken three times daily. Digitalis and squills, when effusion has taken place, should be given. The bark of the wild cherry tree is a valuable tonic in consumption.

The following recipe will be found good for a cough in consumption.

Take Powdered gum arabic,	-	-	-	2 drachms.
“ do. Liquorice root,	-	-	-	2 do.
“ Warm water,	-	-	-	4 ounces.
Mix them; then add—				
Spirits nitre,	-	-	-	2 drachms.
Antimonial wine,	-	-	-	2 do.
Tincture of opium,	-	-	-	50 drops.
Mix;—then take a tablespoonful for a dose three or four times a day.				

BRONCHITIS.

This variety of pulmonary inflammation generally comes on by great oppression and tightness in the breast; with cough; severe pain in the forehead, greatly increased by coughing; expectoration; at first, a viscid and frothy, white mucus, becoming mixed with blood as the disease advances; sometimes vomiting; febrile excitement not violent; pulse, and heat of the surface, not much above the natural standard; tongue moist and white; countenance pallid; little or no pain in the chest; the pain dull, and attended with very oppressed breathing. There is in this disease a particular tendency to effusion into the substance of the lungs; and it is

generally from this occurrence that the disease proves fatal. The lungs do not collapse; the bronchia is filled with a tough mucus, mixed with bloody serum and pus; a frothy fluid escapes from the substance of the lungs, when cut. The mucous membrane of the bronchia is manifestly the principal and primary seat of the disease.

Treatment.—Emetics are among the most useful remedies in this disease; they may be often advantageously repeated two or three times. Moderate bleeding in the commencement is often beneficial; mild saline cathartics are very good. Expectorants of the stimulating kind—such as polygala senega, and gum ammonia—are beneficial. Active stimulants must be given with the expectorants, when the pulse becomes very small, frequent and soft. Camphor and carbonate of ammonia, are the most valuable for this purpose. In the commencement of the disease, small doses of calomel and opium allay the cough, and promote expectoration. I have seen much benefit derived from large emollient poultices applied to the thorax. The inhalation of the steam of warm vinegar and water, is very good; boneset tea is serviceable, nay, indispensable, and must be taken very warm.

PLEURISY.

The true pleurisy is an inflammation of that membrane called the *pleura*, which lines the inside of the breast. It is distinguished into the moist and dry. In the former the patient spits freely; in the latter, little or none at all. There is likewise a species of this disease, which is called the *spurious* or *bastard pleurisy*, (*Peripneumonia Notha*), in which the pain is more external, and chiefly affects the muscles between the ribs. The pleurisy prevails among labouring people, especially such as work without doors, and are of a sanguine constitution. It is most frequent in the spring season.

Causes.—The pleurisy may be occasioned by whatever obstructs the perspiration; as cold northerly winds; drinking cold liquors when the body is hot; sleeping without doors on the damp ground; wet clothes; plunging the body into cold water, or exposing it to the cold air, when covered with sweat, &c. It may likewise be occasioned by drinking strong liquors; by the stoppage of usual evacuations, as old ulcers, issues, sweating of the feet or hands, &c.; the sudden

striking in of any eruption, as the itch, the measles, or the small-pox. Those who have been accustomed to bleed at a certain season of the year, are apt, if they neglect it, to be seized with a pleurisy. Keeping the body too warm by means of fire, clothes, &c., renders it more liable to this disease. A pleurisy may likewise be occasioned by violent exercise, as running, wrestling, leaping, or by supporting great weight, blows on the breast, &c. A bad conformation of the body renders persons more liable to this disease, as a narrow chest, a straitness of the arteries of the pleura, &c.

Symptoms.—This, like most other fevers, generally begins with chilliness and shivering, which are followed by heat, thirst, and restlessness. To these succeeds a violent pricking pain in one of the sides among the ribs. Sometimes the pain extends towards the back bone, sometimes towards the fore part of the breast, and at other times, towards the shoulder blades. The pain is generally most violent when the patient draws his breath.

The pulse in this disease is commonly quick and hard, the urine high coloured; and, if blood be let, it is covered with a tough crust, or buffy coat. The patient's spittle is at first thin, but afterwards it becomes grosser, and is often streaked with blood.

Diet.—Nature generally endeavours to carry off this disease by a critical discharge of blood from some part of the body, by expectoration, sweat, loose stools, thick urine, or the like. We ought, therefore, to second her intentions by lessening the force of the circulation, relaxing the vessels, diluting the humours, and promoting expectoration.

For these purposes, the diet ought to be cool, slender, and diluting. The patient must avoid all food that is viscid, hard of digestion, or that affords much nourishment; as flesh, butter, cheese, eggs, milk, and also every thing that is of a heating nature. His drink may be whey, or an infusion of pectoral and balsamic vegetables.

Barley water, with a little honey or jelly of currants, mixed with it, is likewise a very proper drink in this disease. It is made by boiling an ounce of pearl barley in three English pints of water to two, which must afterwards be strained. The decoction of figs, raisins, and barley, are likewise very proper. These and other diluting liquors are not to be drank in large quantities at a time; but the patient ought to keep continually sipping them, so as to render his mouth and

throat always moist. All his food and drink should be taken a little warm.

The patient should be kept quiet, cool, and every way easy. His feet and hands ought daily to be bathed in lukewarm water; and he may sometimes sit up in bed for a short space, in order to relieve his head.

Medicine.—Almost every person knows, when a fever is attended with a violent pain of the side, and a quick, hard pulse, that bleeding is necessary. When these symptoms come on, the sooner this operation is performed, the better; and the quantity must at first be pretty large, provided the patient be able to bear it. A large quantity of blood let at once in the beginning of a pleurisy, has a much better effect than repeated small bleedings. A man may lose twelve or fourteen ounces of blood as soon as it is certainly known that he is seized with a pleurisy. For a younger person, or one of a delicate constitution, the quantity must be less.

If, after the first bleeding, the pain, with the other violent symptoms, should still continue, it will be necessary, at the distance of twelve or eighteen hours, to take eight or nine ounces more. If the symptoms do not then abate, and the blood shows a strong buffy coat, a third or even a fourth bleeding may be requisite. If the pain of the side abate, the pulse become softer, or the patient begin to spit freely, bleeding ought not to be repeated. This operation is seldom necessary after the third or fourth day of the fever, and ought not then to be performed, unless in the most urgent circumstances.

The blood may be many ways attenuated without bleeding. There are likewise many things that may be done to ease the pain of the side without this operation, as fomenting, blistering, &c. Fomentations may be made by boiling a handful of flowers of elder, camomile, and common mallows, or any other soft vegetables, in a proper quantity of water. The herbs may be either put into a flannel bag, and applied warm to the side, or flannels may be dipped in the decoction, afterwards wrung out and applied to the part affected, with as much warmth as the patient can easily bear. As the clothes grow cool, they must be changed, and great care taken that the patient do not catch cold. A bladder may be filled with warm milk and water, and applied to the side, if the above method of fomenting be found inconvenient. Fomentations not only ease the pain, but relax the vessels,

and prevent the stagnation of the blood, and other humours. The side may likewise be frequently rubbed with a little of the volatile liniment.

Topical bleeding has often a very good effect in this disease. It may either be performed by applying a number of leeches to the part affected, or by cupping, which is both a more certain and expeditious method than the other.

Leaves of various plants might likewise be applied to the patient's side with advantage. I have often seen great benefit from young cabbage leaves applied warm to the side in a pleurisy. These not only relax the parts, but likewise draw off a little moisture, and may prevent the necessity of blistering plasters; which, however, when other things fail, must be applied.

If the pain continue after repeated bleedings, fomentations, &c., a blistering plaster must be applied over the part affected, and suffered to remain for two days. This not only procures a discharge from the side, but takes off the spasm, and by that means assists in removing the cause of the disease. To prevent a strangury when the blistering plaster is on, the patient may drink freely of the gum arabic emulsion.

If the patient be costive, a clyster of thin water gruel, or of barley water, in which a handful of mallows, or any other emollient vegetable, has been boiled, may be daily administered. This will not only empty the bowels, but have the effect of a warm fomentation applied to the inferior viscera, which will help to make a derivation from the breast.

The expectoration may be promoted by sharp, oily, and mucilaginous medicines.* For this purpose, an ounce of the oxymel, or the vinegar of squills, may be added to six ounces of the pectoral decoction, and two tablespoonsful of it taken every two hours.

Should the squill disagree with the stomach, the oily emulsion may be administered; or, in place of it, two ounces of

* Take Oil of sweet almonds,	-	-	-	-	1 ounce.
" Syrup of marsh mallows,	-	-	-	-	$\frac{1}{2}$ do.
" Mucilage of gum arabic,	-	-	-	-	2 do.
" Pure water,	-	-	-	-	3 do.
" Solution of the sub-carbonate of ammonia,	-	-	-	-	$\frac{1}{2}$ drachm.

Make a mixture. Or—

Take Best olive oil,	-	-	-	-	1 ounce.
" Mucilage of gum arabic,	-	-	-	-	2 do.
" Oxymel of squills,	-	-	-	-	3 drachms.
" Sub-carbonate of ammonia,	-	-	-	-	1 scruple.

Make a mixture; of which take a little often, or during the urgency of the cough.

the oil of sweet almonds, or oil of olives, and two ounces of the syrup of violets, may be mixed with as much sugar candy powdered as will make an electuary of the consistence of honey. The patient may take a teaspoonful of this frequently, when the cough is troublesome. Should oily medicines prove nauseous, which is sometimes the case, two tablespoonsful of the solution of gum ammoniac in barley water, may be given three or four times a day. Expectoration, and a determination to the skin, may also be promoted by small nauseating doses of antimonials, taking care, however, not to excite vomiting; but assisting their action by frequent small draughts of some mild, diluent liquor, as barley water, or thin gruel, &c.*

If the patient do not perspire, but has a burning heat upon his skin, and passes very little water, some small doses of purified nitre and camphor will be of use. Two drachms of the former may be rubbed with five or six grains of the latter, in a mortar, and the whole divided into six doses, one of which may be taken every five or six hours, in a little of the patient's ordinary drink.

We shall only mention one medicine more, which some reckon almost a specific in the pleurisy, viz: the decoction of the seneka rattlesnake root. After bleeding and other evacuations have been premised, the patient may take two, three, or four tablespoonsful of this decoction, according as the stomach will bear it, three or four times a day. If it should occasion vomiting, two or three ounces of simple cinnamon water may be mixed with the quantity of decoction here directed; or it may be taken in smaller doses. As this medicine promotes perspiration and urine, and likewise keeps the body easy, it may be of some service in a pleurisy, or any other inflammation of the breast.

When the skin is very hot and dry, saline draughts,† or solution of acetated ammonia, may be administered with ad-

* Take Emetic tartar,	-	-	-	-	-	-	2 grains.
" Distilled water,	-	-	-	-	-	-	8 ounces.
Take two tablespoonsful every three or four hours.							

† Take Lemon juice,	-	-	-	-	-	-	1½ ounce.
" Sub-carbonate of potash,	-	-	-	-	-	-	1 drachm.
" Mint water,	-	-	-	-	-	-	1 ounce.
" Pure water,	-	-	-	-	-	-	3 do.
" Nitrate of potash,	-	-	-	-	-	-	1 drachm.
" Syrup of Tolu,	-	-	-	-	-	-	½ ounce.

Make a mixture;—of which the dose may be three tablespoonsful every four hours.

vantage. To allay pain, ease the cough, stop diarrhœa, when it arises, or procure sleep, we may employ opium.*

If the bowels require evacuation, strong purgatives ought not to be given; but gentle aperients, of a cooling nature, should be used, particularly at the commencement of the disease. For this purpose, Epsom salts,† and manna, in an infusion of senna, or castor oil, will be the most proper; and, as opiates evidently tend to check expectoration, which it is desirable to promote, they ought, if possible to be avoided; but if absolutely necessary, from the exhausted state of the patient for want of sleep, they may be given, combined with some diaphoretic; *e. g.* the compound powder of ipecacuanha, ten grains, &c. If the patient's strength be much exhausted by the disease, it will be necessary at this time to support him with frequent small draughts of wine whey, or the like.

When the pain and fever are gone, it will be proper, after the patient has recovered sufficient strength, to give him some gentle purges, such as senna and salts, castor oil, &c. He ought likewise to use a light diet of easy digestion, and his drink should be buttermilk, whey, and other things of a cleansing nature.

SPURIOUS PERIPNEUMONY, OR BASTARD PLEURISY.—That species of pleurisy which is called the *bastard*, or spurious, generally goes off by keeping warm for a few days, drinking plenty of diluting liquors, and observing a cooling regimen.

It is known by a dry cough, a quick pulse, and a difficulty of lying on the affected side; which last does not always happen in the true pleurisy. Sometimes, indeed, this disease proves obstinate, and requires bleeding, with cupping, and scarifications of the part affected. These, together with the use of nitrous and other cooling medicines, seldom fail to effect a cure. Blistering is often useful in this disease, to relieve the difficulty of breathing, and oppression at the chest;

* Take	Solution of acetated ammonia,	-	-	-	-	3 drachms.
"	Mint water,	-	-	-	-	1 ounce.
"	Tincture of opium,	-	-	-	-	25 minims.
"	Syrup of Tolu,	-	-	-	-	2 drachms.
"	Antimony wine,	-	-	-	-	12 drops.
	Make a draught.					

† Take	Epsom salts,	-	-	-	-	2 drachms.
"	Manna,	-	-	-	-	3 do.
"	Infusion of senna,	-	-	-	-	1½ ounce.
	Make an aperient draught.					

and if nausea prevail, a gentle emetic may be prescribed. We may be satisfied with the use of antimonial, as in the true peripneumony.

Through the whole course of the disease the antiphlogistic regimen, such as oatmeal, barley, rice, &c., will be proper. Where great debility prevails, or where the patient has been accustomed to a free use of fermented liquors, a small quantity of wine will be admissible.

HEART-BURN.

What is commonly called the *heart-burn* is not a disease of that organ, but an uneasy sensation of heat or acrimony about the pit of the stomach, which is sometimes attended with anxiety, nausea, and vomiting.

It may proceed from debility of the stomach, indigestion, bile, the abounding of an acid in the stomach, &c. Persons who are liable to this complaint ought to avoid stale liquors, acids, windy or greasy aliments, and should never use violent exercise soon after a plentiful meal. I know many persons who never fail to have the heart-burn if they ride soon after dinner, provided they have drank ale, wine, or any fermented liquor; but are never troubled with it when they have drank rum or brandy and water, without any sugar or acid.

When the heart-burn proceeds from a debility of the stomach, or indigestion, the patient ought to take a dose or two of rhubarb; afterwards he may use infusions of the Peruvian bark, or any other of the stomachic bitters, in wine or brandy. Drinking a cup of camomile tea, with fifteen or twenty drops of elixir of vitriol in it, twice or thrice a day, will strengthen the stomach and promote digestion. Exercise in the open air will likewise be of use.

When bilious humours occasion the heart-burn, a tea-spoonful of the sweet spirits of nitre, in a glass of water, or a cup of tea, will generally give ease. If it proceeds from the use of greasy aliments, a dram of brandy or rum may be taken.

If acidity or sourness of the stomach occasions the heart-burn, absorbents are the proper medicines. In this case an ounce of powdered chalk, half an ounce of fine sugar, and a quarter of an ounce of gum arabic, may be mixed in an English quart of water, and a teacupful of it taken as often as is necessary. Such as do not choose chalk, may take a

teaspoonful of super-carbonate of soda. But the safest and best absorbent is *magnesia alba*. This not only acts as an absorbent, but likewise as a purgative; whereas chalk, and other absorbents of that kind, are apt to lie in the intestines, and occasion obstructions. This powder is not disagreeable, and may be taken in a cup of tea, or a glass of mint water. A large teaspoonful is the usual dose; but it may be taken in a much greater quantity when there is occasion. These things are now generally made up into lozenges, for the convenience of being carried in the pocket, and taken at pleasure.*

If wind be the cause of this complaint, the most proper medicines are those called carminatives: as aniseeds, juniper berries, ginger, canella alba, cardamom seeds, &c. These may either be chewed, or infused in wine, brandy, or other spirits; but these ought never to be used, unless they are absolutely necessary, as they are only drams in a dry form, and very pernicious to the stomach. One of the safest medicines of this kind is the tincture made by infusing an ounce of rhubarb, and a quarter of an ounce of the lesser cardamom seeds, in an English pint of brandy. After this has digested for two or three days, it ought to be strained, and four ounces of white sugar candy added to it. It must stand to digest a second time, till the sugar be dissolved. A tablespoonful of it may be taken occasionally for a dose.

I have frequently known the heart-burn cured, particularly in pregnant women, by chewing green tea. Two table-spoonful of what is called the milk of gum ammoniac, taken once or twice a day, will sometimes cure the heart-burn.

As pregnant women are very subject to this uneasy sensation, they should first consider whether it proceeds from any of the causes already explained; in which case the medicines prescribed under each head will probably remove it. But if the internal sense of heat be owing to the state of pregnancy itself; if it arises from the consent between the stomach and the womb, and is not accompanied with much spitting, or any acid eructations, the white of an egg, mixed with a little sugar and water, will often afford the only relief that can be expected for some time.

* The heart-burn, if very troublesome, may be almost immediately removed, by taking fifteen or twenty drops of the purified soap lees, the aqua kali puri of the shops, in a cup of linseed tea, or of milk.

ENLARGEMENT OF THE HEART.

Among the most common causes of the enlargement of the heart, are rheumatism and diseases of the spine. The subject is introduced here in order to remove the impression that diseases of the heart are necessarily fatal.

The heart may be greatly enlarged, yet, under a judicious treatment and regimen, the patient may so far recover as to enjoy general good health. The disease may be recognized by the violent motion of the heart, and frequency of palpitations; by the pulses of the heart being felt over parts of the chest where they are not generally perceived, and by a kind of hissing or rushing sound striking upon the ear, when it is applied to the chest. This sound has been compared to the blast of a bellows.

The Treatment of this complaint must necessarily consist mainly in removing the cause, be it diseased spine, rheumatism, or any other disturbance to the nervous power of the organ. Much may be done in some cases, in arresting the progress or effecting the removal of the enlargement, by lessening the force and frequency of the pulse, and the quantity of the circulating fluid. These objects are attained by means of rest and freedom from excitement; the careful use of the lancet; strictly moderate and mild diet; and the administration of digitalis, which has a singular influence over the pulse, but it must be used with caution.

APOPLEXY.

Apoplexy makes its attack chiefly at an advanced period of life, and most usually on those who are of a corpulent habit, with a short neck, and large head; and who lead inactive lives, make use of full diet, or drink to excess. The immediate cause of apoplexy is a compression of the brain, produced either by an accumulation of blood in the vessels of the head, and distending them to such a degree as to compress the medullary portion of the brain, or by an infusion of blood from the red vessels, or of serum from the exhalants; which fluids are accumulated in such quantities as to occasion compression. These states, of over distension and of effusion, may be brought on by whatever increases the afflux, and impedes the blood in the arteries of the head; such as violent fits of passion; great exertions of muscular strength;

severe exercise; excess in venery; stooping down for any length of time; wearing any thing too tight about the neck; overloading the stomach; long exposure to excessive cold, or a hot sun; the sudden suppression of any long accustomed evacuation. Apoplexy is sometimes preceded by headache, giddiness, dimness of sight, loss of memory, faltering of the tongue in speaking, numbness in the extremities, drowsiness, stupor, and nightmare; all denoting an affection of the brain; but it more usually happens that, without much previous indisposition, the person falls down suddenly; the countenance becomes florid; the face appears swelled, and puffed up; the vessels of the head, particularly of the neck and temples, seem turgid and distended with blood; the eyes are prominent and fixed; the breathing is difficult, and performed with a snorting noise, and the pulse is strong and full. Although the whole body is affected with the loss of sense and motion, it nevertheless takes place often more on one side than the other. The side least affected is somewhat convulsed. If the fit is of a long duration, the respiration laborious, and the person far advanced in years, the disease in all probability will terminate fatally. In some cases, it goes off entirely, but it most frequently leaves a state of mental imbecility behind it, or terminates in death. Even when an attack is recovered from, it most frequently returns again, after a short period of time, and in the end proves fatal. In dissection, blood is often found effused on the surface and in the cavities of the brain; and in other instances a distension of the blood-vessels is observed.

Treatment.—All compression should be removed from the neck, the patient laid with his head a good deal raised, and a free admission of cool air allowed. Then blood should be taken freely from the arm, or the temporal artery, or the jugular vein; which it may be sometimes necessary to repeat, if the symptoms continue, and the patient is still plethoric; cupping or leeching may lessen the congestion in the brain. The next object should be thoroughly to evacuate the bowels by some active purgative, as calomel and jalap, or an infusion of senna and salts, repeated every few hours till it operates; stimulant injections will also be proper, particularly if the patient cannot swallow, to be composed of common salt, molasses, infusion of senna and castor oil. Cold water should be applied to the head, the hair being previously shaved; apply a blister to the back of the neck. Mustard to the

feet may also be useful, particularly if these are cold. Emetics are sometimes useful. Take twenty grains of ipecacuanha, with two grains of tartar emetic, given in a little syrup or molasses. If an emetic operation be obtained, it should be followed by the administration of a powerful cathartic, which may be aided in its operation by a stimulant injection.

PALSY.

Palsy is a loss or diminution of sense or motion, or of both, in one or more parts of the body. Of all the affections called nervous, this is the most suddenly fatal. It is more or less dangerous, according to the importance of the part affected. A palsy of the heart, lungs, or any part necessary to life, is mortal. When it affects the stomach, the intestines, or the bladder, it is highly dangerous. If the face be affected, the case is bad, as it shows that the disease proceeds from the brain. When the part affected feels cold, is insensible, or wastes away, or when the judgment and memory begin to fail, there is small hope of a cure.

In some instances the disease is confined to a particular part or set of muscles; but it more usually happens that one entire part of the body, from the head downwards, is affected, which is known by the name of hemiplegia. If the power of motion and sense of feeling in the half of the body, taken transversely, be impaired, the complaint is denominated paraplegia.

Causes.—The immediate cause of palsy is any thing that prevents the regular exertion of the nervous power upon any particular part of the muscle or part of the body. The occasional and predisposing causes are various, as wounds of the brain, or spinal marrow; pressure upon the brain, or nerves; very cold or damp air; the suppression of customary evacuations; sudden fear; want of exercise; or whatever greatly relaxes the system, as drinking much tea,* or coffee. The palsy may likewise proceed from wounds of the nerves themselves, from the poisonous fumes of metals or minerals, as mercury, lead, arsenic, &c.

* Many people imagine that tea has no tendency to hurt the nerves, and that drinking the same quantity of warm water would be equally pernicious. This, however, seems to be a mistake. Many persons drink three or four cups of warm milk and water daily, without feeling any bad consequences; yet the same quantity of tea will make their hands shake for twenty-four hours. That tea affects the nerves, is likewise evident from its preventing sleep, occasioning giddiness, dimness of the sight, sickness, &c.

When palsy attacks any vital part—such as the brain, heart, or lungs—it soon terminates fatally. When it arises as a consequence of apoplexy, it generally proves very difficult of cure. Paralytic affections of the lower extremities, ensuing from any injury done to the spinal marrow, by blows and other accidents, usually prove incurable.

Treatment.—In young persons of a full habit, the palsy must be treated in the same manner as the sanguine apoplexy. The patient must be bled, blistered, and have his bowels opened by sharp clysters or purgative medicines. But in old age, or when the disease proceeds from relaxation or debility, which is generally the case, a quite contrary course must be pursued. The diet must be warm and invigorating, seasoned with spicy and aromatic vegetables, as mustard, horse-radish, &c. The drink may be generous wine, mustard whey, or brandy and water. Friction with the flesh brush, or a warm hand, is extremely proper, especially on the parts affected. Blistering plasters may likewise be applied to the affected parts with advantage. When this cannot be done, they may be rubbed with the volatile liniment.* One of the best external applications is electricity. The shocks, or other vibrations, should be received on the part affected; and they ought daily to be repeated for several weeks.

As a gentle stimulus to the parts, urtication may sometimes be used; warm bathing, the bath waters, electricity, galvanism, are all attended, in many cases, with much benefit, and therefore ought not to be omitted.

When the disease affects several different parts of the body, as in hemiplegia and paraplegia, stimulants should be used both internally and externally. Those in most use are mustard seed, horse-radish, and volatile alkaline salts or spirits, and ether, as directed below.†

* Take Compound camphor liniment, - - - - 1 ounce.
 " Oil of turpentine, - - - - 3 drachms.
 Make a liniment. Or—

Take Spirits of camphor, - - - - 1 ounce.
 " Tincture of Spanish flies, - - - - 2 drachms.
 " Solution of sub-carbonate of ammonia, - - ½ ounce.

† Take white mustard seed, two teaspoonsful in a teacupful of cold water.
 Or—

Take White mustard seed, bruised, - - - - 2 ounces.
 " Horse radish, - - - - 2 ounces.
 " Orange peel, - - - - ½ ounce.
 " Pump water, - - - - 2 pints.

Make a decoction, and strain; of which a teacupful may be taken three times a day; adding occasionally 20 drops of the tincture of valerian.

Vomits are very beneficial in this kind of palsy, and ought frequently to be administered. Cephalic snuff, or any thing that makes the patient sneeze, is likewise of use. Some pretend to have found great benefit from rubbing the parts affected with nettles; but this does not seem to be any way preferable to blistering. If the tongue be affected, the patient may gargle his mouth frequently with brandy and mustard; or he may hold a bit of sugar in his mouth, wet with the compound spirits of lavender. The wild valerian root is a very proper medicine in this case. It may either be taken in an infusion with sage leaves, or half a drachm of it in powder may be given in a glass of wine three or four times a day. If the patient cannot use the valerian, he may take of *sal volatile oleosum*, compound spirits of lavender, and tincture of castor, each half an ounce; mix these together, and take forty or fifty drops in a glass of wine three or four times a day. A tablespoonful of mustard seed, taken frequently, is a very good medicine. The patient ought likewise to chew cinnamon, bark, ginger, or other warm spiceries.

Although in every instance a dangerous disease, palsy, particularly at an advanced period of life, is sometimes removed by the occurrence of a diarrhœa, or fever. A feeling of warmth, and a slight, pricking pain, as if stung by ants in the parts affected, with returning sensation and motion, are favourable symptoms.

Exercise is of the utmost importance in the palsy; but the patient must beware of cold, damp, and moist air. He ought to wear flannel next his skin; and, if possible, should remove into a warmer climate.

ABSCESSSES.

An abscess is a collection of matter in a sac, produced by inflammation, giving the surrounding parts a tendency to the ulcerative process, so as to lead to their absorption. Abscesses are dangerous according to their size, number, and situation. A great number of small abscesses on the surface of the body—as in small-pox—frequently terminate fatally. They are also dangerous from their being situated in vitally important parts: such as the brain, heart, or lungs. Abscesses are either acute or chronic; the former having a common course of three weeks; the latter much slower in their progress.

Treatment for acute abscesses.

Take solution of acetate of ammonia,	-	-	6 ounces.
“ Sulphate of magnesia,	-	-	1 do.
“ Tincture of opium,	-	-	1 drachm.

Mix them. Dose—three tablepoonsful three times a day.

The best local treatment is—linseed or bread poultices.—No stimulating applications would answer.

Treatment for chronic abscesses.—Use stimulating poultices, made of yeast, vinegar, and flour, with a solution of common salt. Mercurial plaster is very good. When it is necessary to open an abscess, you should do it early, as the early discharge of matter is the prevention of scars.

DROPSY.

The immediate cause of dropsy is an undue accumulation of fluid, either in the cellular substance which intervenes between the skin and the muscular tissue, or in the serous cavities. The quantity of effused fluid, in either of the situations just referred to, is dependant upon two opposite processes—deposition and absorption. It is evident that either an augmentation of the former, or a diminution of the latter, would be adequate to the production of the disease. Accordingly it has always been a subject of discussion, whether dropsy should be considered an active or a passive affection; whether the capillaries should be considered in fault for separating too much, or the absorbents for taking up too little. Cellular dropsy generally shows itself in the lower limbs, where it is marked by a cold, diffused swelling, which, when pressed, retains a pit or impression of the fingers for some time. It may be either a symptom of some internal effusion, or a distinct affection. In either event, however, the progress is slow. The swelling appears first about the feet and ankles, and is more or less observable through the day, disappearing much during the night, from the recumbent posture. By degrees it becomes more permanent, ascends higher, affects the legs and thighs, and finally may even reach the trunk and face; which latter becomes pale and bloated. If the disease advance, the skin of the legs gives way, and the accumulated fluid either collects in sacs under the cuticle, or oozes out in drops.

IN DROPSY OF THE CHEST, or HYDROTHORAX, the fluid is accumulated in the cavity of the pleura. The peculiar symp-

toms are, a sense of oppression in the chest; difficulty of breathing during exercise or while lying down; livid countenance; irregular pulse, and palpitation.

IN DROPSY OF THE ABDOMEN, the water is usually contained in the peritoneal cavity; and its presence is readily recognized by the sense of fluctuation which is produced when one hand is placed on one side of the belly, and the opposite side is gently struck or tapped with the other. This form of dropsy is often complicated with more or less disease of the liver. The quantity of fluid collected has been, in many instances, surprisingly great. Eleven gallons have been discharged through an artificial opening at one time. The symptoms, with the exception of the gradual swelling of the belly, which cannot fail to be remarked, resemble very closely those of dropsy of the chest; but there is less embarrassment of breathing.

The three forms of dropsy which have been mentioned, especially the first and last, are very frequently united, and arise from causes in many respects similar. They form the sequel to fevers and inflammatory affections, especially of the pleura and the peritoneum, and are often among the signs of the decay of constitutions, impaired by climate and hard labour.

Treatment.—The treatment is chiefly directed to two objects: the evacuation of the effused fluid, and the prevention of its return. In the former case, scarifications made with a lancet through the integuments, will permit the effused fluid to escape; and in the latter, a more complete evacuation may be effected by tapping. But as these means are palliative merely, they are now never employed except under urgent necessity. To cause the evacuation of the superfluous fluid through the natural channels, emetics, sudorifics, and blisters, have been often resorted to; but the principal remedies employed have been, first, the drastic cathartics, which, from their peculiar operation, have been termed hydragogues, and which produces abundant liquid evacuations from the alimentary canal; and secondly, the diuretic class, which cause a like tendency of the fluid to the urinary passages. The particular remedies of both classes are numerous; but we must be content with adverting to the principle on which they act. It is not our purpose to encourage the domestic practitioners in their employment.

The re-accumulation is prevented by whatever has a tendency to strengthen the constitution, and increase the vigour of the absorbent system; and hence tonics, especially the vegetable bitters and the preparation of iron, have always been considered as among the best.

I have subjoined a general prescription to be administered:

Take Infusion of dandelion,	-	-	-	-	4 ounces.
" Extract do.	-	-	-	-	2 drachms.
" Carbonate of soda,	-	-	-	-	$\frac{1}{2}$ do.
" Cream of tartar,	-	-	-	-	3 do.
" Tincture of rhubarb,	-	-	-	-	3 do.
" Tincture of hyosciamus,	-	-	-	-	20 drops.

Mix. One-third to be taken three times a day.

DROPSY OF THE BRAIN, is a disease which very often comes on gradually, and almost imperceptibly; commonly beginning in the same manner as convulsions. The child is wakeful; or, if asleep, it grinds its teeth, and often starts or rouses up suddenly, alarmed and screaming. Its bowels become irregular, and the discharges have an unnatural appearance; they are often green, slimy, or watery. The countenance is usually pale, and anxious or disturbed. The eye-lids are half shut whenever the patient is exposed to the light.

Children who can speak, complain of pain in the forehead; and even in small infants, suffering is indicated by a constant disposition to apply the hand upon the head. As the disease progresses, vomiting occurs, and becomes very frequent, especially when the child is set upright. It is very restless, and tosses its head from side to side, evincing much suffering by its groans, or whining. Its skin is dry, and generally rather hot; the pulse is frequent and hard, but not full. Soon after this, the child appears dull and stupid, and inclined to sleep constantly. There is not only a general inactivity, but also a palsy of one or more of the extremities, by which it is rendered motionless, except a slight twitching of the toes or fingers. One or both eyes may now be observed to squint; and either remain fixed, or be in constant motion. The pupil of the eye may be found either unnaturally contracted or dilated; convulsions soon follow; and, after a lingering agony, death closes the scene. The affection often creeps on so insidiously, that it escapes the observation of even the anxious mother. Sometimes the first thing known is the convulsion.

Treatment.—The fever should be kept down by such

means as invite the blood away from the brain; and for this purpose the bowels should be purged;—say for a child two and a half years of age, give five or six grains of calomel, and the same quantity of rhubarb, to be followed the next day by a dose of magnesia, Epsom salts, or castor oil. These must be repeated every day until the discharges become more natural. During all this time, the most simple diet only can be allowed the patient: such as boiled milk, barley water, arrow root, rice water, &c. If any sore behind the ear shall have been recently dried up, it must be again opened by a blister. A free bleeding from the arm will be necessary, and afterwards leeches to the temples, and back of the head, or cups to those parts and the back of the neck. Keep the extremities warm, the bowels open, the head cool, the room dark and quiet. After bleeding and purging, the Dover's powders are good to quiet the patient. They should be given with caution; and the head, at the same time, should be covered with a cap wrung out in cold water, and its temperature constantly kept under. A blister behind the neck would be useful after the system has been sufficiently reduced by bleeding and purgatives.

LIVER COMPLAINT.

The presence of inflammation of the liver is recognized by the following symptoms:—Together with chill and fever, there occurs pain on the right side, under the arches of the false ribs. The pain is accompanied with some degree of soreness, and tenderness on pressure. The skin is usually yellow, and the stools clay coloured. Thirst, a furred tongue, and nausea, are also symptoms; and there is a short, dry cough, dependant, as is generally thought, on irritation of the diaphragm, with which the liver lies in close contact. If it be on the surface of the organ, the suffering is greater than when it is more deeply seated. On the other hand, jaundice is a more prominent symptom, when the disease affects the substance of the organ, than when it is limited to the surface. In the latter case, the duration of the disease is often short, and a revolution takes place on the third, fourth, or fifth day. This result is often marked by critical hemorrhage from the nose, by copious bilious discharges from the bowels, profuse sweat, or turbid urine. Inflammation of the substance of the liver, when not checked, occasionally forms an abscess; an

occurrence recognized by severe chills and external swelling over the part, sometimes accompanied by distinct but deep seated fluctuation.

The course taken by the matter, under these circumstances, is various. Sometimes it approaches the surface, and the surgeon is enabled to give it vent; sometimes it discharges itself into the neighbouring portion of intestine; in which case the pus is discharged by vomiting or purging, often producing a fatal termination within a few hours; and sometimes it passes through the diaphragm into the chest, opening either into the pleural cavity, where it forms an empyema, or into the lungs, from which it is rejected in large amounts by the mouth. In a few instances the abscess has been known to open into the cavity of the abdomen, where it produces extensive inflammation and death.

Abscess, however, from acute hepatic inflammation, is rather uncommon. The substance of the organ is more likely to take other changes, and to become indurated and altered in structure, with increased liability to irritation from the action of remote causes; and thus the inflammation is rendered chronic. In this form, the pain is less acute, and there is less sympathetic disturbance and general fever. Both acute and chronic inflammation of the liver, are frequently accompanied with pain in the right shoulder, a symptom too vague to be much depended on, and one to which undue importance has been attached.

The abuse of drastic cathartics, especially such as are commonly sold as specifics, will sometimes bring on an attack of this kind. In these cases the presence of nausea will render proper the administration of an emetic; and if chill and general fever be manifested, a gentle perspiration must be excited and encouraged, the boneset tea and sweet spirits of nitre being among the best means of effecting this purpose. If the emetic fail to move the bowels, a gentle dose of salts or oil may be employed for this purpose.

General bleeding is not found to exert the same beneficial influence in this disease which it exhibits in pleurisy, or lung fever. It is useful at the outset in severe cases; but it must be vigorously followed up by cupping or leeches to the affected side. These may be advantageously succeeded by fomentations, or, when the force of the pulse has been diminished, by a blister; the latter being best suited to the su-

perforated form of inflammation, the former to that which is deeply seated.

The former treatment will naturally come under the cognizance of the regular practitioner. The occurrence of severe and repeated chill, after the second or third day, will inspire a suspicion that suppuration is taking place, and suggest the necessity of employing those means which are found to accelerate this process; of which, heat and moisture, externally employed, are the most important.

The care and management of hepatic abscess, however, demands all the resources of practised surgical skill. Chronic inflammation of the liver, though, as above stated, frequently a sequel of the acute affection, is often developed insidiously, and, under this form, the disease deserves a separate consideration. As seen in temperate regions, it is often induced by long continued habits of excess, or supervenes in obstinate intermittents. It is indeed generally accompanied with fever of a remitting character, having a daily evening exacerbation. The pain is often obtuse, or even absent; but the organ, on examination, will generally be found harder and larger than natural, while the digestion is imperfect, the bowels costive, and the stools usually clay coloured. This form of the disease is too often the index of a decayed and broken constitution, and, as such, yields with great reluctance to the most judicious treatment.

DYSENTERY.

Dysentery is an inflammation of the mucous membrane of the intestinal canal, attended by fever, frequent bloody or mucus stools, followed by severe straining efforts, which expel a little of the mucus that naturally covers the surface of the intestine. This generally resembles a mass of jelly, is often mixed with blood, but always unmixed with any of the natural bilious discharges from the canal. This evacuation relieves the pain for a moment; but after a long interval, the same desire returns, and is followed by the same result. Continued fever, which is increased towards evening, accompanies the disease, and, with the increase of fever, the local symptoms are also aggravated. As the disease advances, the true mucus character of the stool is exchanged for one having rather the appearance of matter from an ulcer or open sore. When the disease is epidemic, and of severe charac-

ter, the patient often dies with extensive inflammation; and if neglected, the disease frequently passes into a chronic form. The slimy and bloody discharges in this disease, are undoubtedly dependant on inflammation of the mucous membrane lining the bowels. The tismus, or straining in dysentery, is one of its most striking symptoms, and shows completely, independent of any solid matter in the intestine, the desire for evacuation. A teaspoonful of some fluid matter arouses the activity of the part when in this irritable state, even more than actual distension when the bowels are in health. This straining, when the disease has continued for some days, becomes the cause of much pain and faintness.

Treatment.—Dysentery, when in its incipient stage, the only one which we propose to consider, is simple. If evidently the result of excess, if accompanied with nausea, or other symptoms of deranged stomach, or if simply attended with fever and headache, an emetic will be highly proper; but this remedy is absolutely inadmissible when the disease prevails as an epidemic. In ordinary cases, the effect of an emetic, given at the invasion of this disease, is highly salutary, and often succeeds in arresting its progress.

In the first place, there is a stronger sympathy between the stomach and the rectum and colon, than between any intermediate portion of the canal; secondly, an emetic is often the most complete of all cathartics; producing evacuations in both directions, and changing the whole of the secretions of the canal. Thirdly, an emetic is one of the most powerful sudorifics; indeed, we know of no single remedy so likely, when administered at the very outset of the disease, to effect a complete cure; but where the case has been suffered to run on unchecked to the third or fourth day, we cannot recommend this mode of treatment with the same confidence. Diaphoretics are among the most valuable curative means in this disease. The bowels having been adequately evacuated by mild laxatives, and bleeding having been resorted to where the violence of the febrile symptoms demanded, diaphoretics, in conjunction with calomel, is the sheet anchor of our hopes. Dover's powder is a peculiarly excellent diaphoretic in this complaint. Six grains of Dover's powder, with three or four grains of calomel, may be given every six hours. A combination of calomel, opium, and antimonial powder, is an excellent diaphoretic anodyne. Blisters, leeches, or emollient poultices, to the abdomen, often

prove highly beneficial. Balsam copaiva is a valuable medicine in chronic dysentery. Warm fomentations are highly advisable. Mucilaginous drinks, such as flaxseed tea, barley and gum water, mucilage of slippery elm bark, and of the pumpkin seed, are grateful, and do much good by lubricating the surface of the canal. Mucilaginous injections with laudanum, are very necessary in a low stage of the disease.

As an emetic :—

Take Ipecacuanha, - - - - - 20 grains.

“ Tartar emetic, - - - - - 2 do.

Mix; and divide in two doses. If one do not operate in half an hour, then take the other. Drink warm water freely.

As a cathartic :—

Take Dover's powder, - - - - - 8 grains.

“ Calomel, - - - - - 6 do.

“ Tartar emetic, - - - - - 1 do.

To be taken every six hours, if necessary.

COLIC.

Colic is divided into three varieties, according to the nature of the exciting causes.

FLATULENT COLIC—so called from the prominent symptoms of indigestion and flatulency which attend it. It is produced by irritating and indigestible articles of diet, and debility of the digestive organs. The colic pains come on an hour or two after the indigestible diet is taken. Sometimes the food passes into the bowels in an imperfectly digested state, and then the pain does not come on so soon, and is felt low down in the abdomen. At first there is a sense of distension in the pit of the stomach, followed soon by pain, which rapidly increases, until it acquires an intense degree of violence. The pain occasionally remits. During that time the patient throws himself about, and presses firmly on his abdomen with his hands. Large quantities of air are from time to time forced up, or pass off downward; generally not dangerous unless it terminates in inflammation, which sometimes, though not often, occurs.

Treatment.—In slight attacks, carminatives and anodynes are often sufficient to procure relief. Remedies of this kind generally answer well, when the stomach does not contain irritating substances. When it does contain irritating sub-

stances, an ipecacuanha emetic must be given; purgatives to be used when the pain is below the stomach. They may be advantageously combined with aromatics. I prefer castor oil and spirits of turpentine in union. Injections are always useful when the pain is excessive. Opium, in very large doses, with calomel, is a valuable remedy.

BILIOUS COLIC.—This colic is so called from the bilious vomiting, and other symptoms, manifesting functional derangement of the liver. The most urgent and peculiar symptoms of this variety of colic, are generally preceded by headache, want of appetite, bitter taste in the mouth, thirst, and bilious vomiting. The colic pains are excessively acute; pressure at first gives relief; but the abdomen becomes tender to the touch, as the disease advances. Immediately after vomiting, the pain undergoes a temporary abatement; the bowels are generally immovably torpid. About the second or third day, the eyes and skin become yellow. It is generally believed that the liver is in a state of morbid activity, secreting a superabundance of bile.

Treatment.—In this variety of colic the principal measures are, first, to free the bowels from their irritating contents; second, to allay the irritability of the stomach and bowels; and third, to restore the healthy action of the liver. Emetics are very useful in the beginning, when there is not full spontaneous vomiting. Purgatives are of primary importance. They can seldom be given, however, with effect, until the gastric irritability is allayed. Small doses of calomel, say one and a half grains, given every half hour, answer well to prepare the stomach for the reception of purgatives. Our principal reliance must be placed on the full operation of purgatives. Opium, given in two grain doses, affords much relief after purging. It should always be given in combination with calomel. Then mild aperients should be used for several days after the bowels have been once freely evacuated. A mustard plaster to the stomach, and warm fomentations, are valuable auxiliaries. Bleeding must be fully employed in robust and plethoric subjects, with a view of obviating inflammation. The warm bath is a very useful auxiliary. The utmost caution is to be used in relation to diet and exposure during the period of convalescence. Flannel should be worn round the abdomen. Very cold drinks must be avoided.

PAINTER'S COLIC.—This variety of colic generally comes on gradually, and is, in most cases, preceded by symptoms of gastric derangement: such as irregular appetite; constipation; foul stomach; pains in the belly; languor; pale countenance, &c. This kind of colic is attended with constant and extremely severe pain about the umbilical region; the belly is hard and forcibly contracted, and the bowels very costive. The pain suffers occasional remissions, but no perfect intermissions, as in other varieties of colic. It sometimes assumes a chronic form, producing wasting and palsy of the fore-arms. The predisposition to it is greatly increased by having once suffered an attack; by sudden change in the atmosphere, unripe fruit, &c. It is called painter's colic, because it mostly attacks painters, glaziers, and workers in lead factories.

Treatment.—Bleeding should be freely employed in robust and plethoric subjects; or, when the pulse is hard and quick, opium, with calomel, is a remedy of primary importance. Both these articles should be given in very large doses, with the view of relieving the intestinal spasm, and bringing on an early action. Two grains of the former, with the same quantity of the latter, may be given every two hours until the pain is relieved. Purgatives ought to be given immediately; they should be given in a liquid form. Cold water dashed on the belly and thighs, has been found useful. Alum, in fifteen grain doses every three hours, is much recommended. Stimulating enemata are highly beneficial.

COLIC IN INFANTS.—Infants are extremely liable to suffer from colic, as may be seen by their becoming suddenly fretful, drawing up their legs, and crying violently for a few moments, then becoming apparently easy again for a short time. Some children will suffer greatly in this way, with occasional intervals for some weeks; yet they will thrive, and become quite fat.

Colic, in many cases, depends upon some ill quality, and quantity of food taken. The milk of the mother, from improper diet on her part, may give the child colic. Children often suffer from colic, induced by inattention to the speedy removal of the diapers of the child, after evacuation either from the bowels or bladder.

Treatment.—The mild forms of colic can generally be removed by wrapping the child warmly, briskly rubbing its

back and belly with a warm, dry hand, and laying it with its abdomen upon the nurse's lap, while gently agitating its whole body upon the knee. Should it continue to evince pain, a teaspoonful of warm infusion of fennel seed, or anniseed, may be given at intervals of five or ten minutes, till five or six doses are taken. Paregoric, laudanum, and various carminatives and colic tinctures, are all hazardous remedies. Two or three drops of sweet spirits of nitre, in a teaspoonful of water, will often relieve obstinate colic. I have always found the following prescription to relieve colic :—

Take Magnesia,	-	-	-	-	$\frac{1}{2}$ drachm.
“ Tincture of assafœtida,	-	-	-	-	40 drops.
“ “ opium,	-	-	-	-	20 drops.
“ White sugar,	-	-	-	-	1 drachm.
“ Warm water,	-	-	-	-	1 ounce.

Mix them well together, and give twenty-five drops to an infant two to four years old.

The above will be found a good and safe remedy for colic. The quantity may be increased in proportion to age.

CANCER.

Cancer generally commences in a hard, knotty tumour, beginning in the secreting glands, but often propagated to other parts, and terminating in an ulcer, with thick margins and a fetid discharge.

A predisposition to cancer is unquestionably hereditary; the experiment of communicating the disease by inoculation, proves it is not contagious. In women, the attack is most generally in the breast. Unmarried women, after the age of forty, are most liable to cancer; and next to these, are mothers who have not suckled. Next in the order of frequency, comes married women who have reached the period of life above referred to. When cancer occurs in men, it is chiefly in the lip or on the face, where it is commonly caused by the irritation of a peculiar kind of wart. The causes which produce cancers are numerous. Among them may be mentioned various kinds of external injury; pre-existing tumours, accidentally irritated; severe eruptive diseases, and the time of change of life. Cancer in the breast usually commences with a small indolent tumour, which for some weeks or months attracts but little attention. After a short period this tumour begins with itching, which is soon followed by a

pricking or lancinating pain, often very intense, and generally shooting in the direction of neighbouring glands. A sense of burning, and a livid discolouration of the skin, appears still later in the case. When these symptoms are united, the disease may be considered as manifest. At this period the tumour approaches the skin, and feels knotty to the finger. Sooner or later the integuments give way in places, and a small quantity of fluid, mixed with blood, is discharged. The ulcer rapidly enlarges till a considerable cavity is exposed, from which issues a most offensive discharge. Whatever appearances there may be of the ulcer healing from time to time, no real progress is made; its ravages extend until the whole gland is involved; and the weight, pain, and fetor of the tumour render life a burden. When cancer attacks the uterus, it is known by lancinating pains in this organ, shooting through the region of the pelvis; and there is, after a time, a mixed, unhealthy discharge, having the peculiar odour which belongs to the disease. Cancer in the stomach is obscure, and during life is seldom more than suspected. There are acute and burning pains at the pit of the stomach, and tenderness on pressure, nausea, and rejection of food; but these symptoms do not enable us certainly to discriminate between this disease and many others. Cancer of the lip usually commences with a slight fissure or crack, which being irritated by injudicious applications, takes on a malignant form. On the tongue, the disease first manifests itself in a small wart near the tip. Both this and the latter form are easily removed by an operation, and they rarely return. When on the cheek or nose, cancer is usually preceded by a wart, which, when not subject to irritation, may remain harmless for life.

Treatment.—In the treatment of this disease, our chief reliance must be on extirpating the part affected. Some have attempted to dispel the tumour by leeches, caustics, and narcotics, but without much success. The plan of destroying the parts by caustic, is very painful and tedious. Cancer of the breast, in its early stage, may be relieved by lead water washes, and the constant application of sheet lead to the surface of the tumour. At a late period, when the ulcer is fully developed, the application of arsenic has been successfully resorted to; and this forms the basis of most of the cancer plasters in common use. It is a violent and dangerous caustic, and requires caution in its use. If there is much

pain, I would use a drachm of the extract of belladonna, rubbed down with an ounce of soap. Evaporating lotions and warm applications should never be used; they do more harm than good; but the remedy just recommended diminishes the nervous irritability of the parts, and excites a gentle perspiration without any undue heat. With respect to diet, it must not be too low; but let your patient take those things which she finds will agree with her own feelings, and which do not derange the general health. Wine or spirits must not be taken, or, if wine is allowed, it should be mixed with water. Never hurry the constitution, nor give her any thing so as to disorder the constitution, but support her strength by animal food. Do not debilitate it, on the one hand, nor stimulate it on the other; for if you do, it will be a sure way to hasten the progress of the disease. Cancer of the skin rarely returns after operations; but those of other parts are extremely prone to do so.

CATARRH.

Catarrh, in itself, is very rarely a dangerous affection. The symptoms of a common cold are too well known to require any description. Its causes are a sudden change of temperature, to a cold and damp atmosphere; but it often makes its attack without obvious reason. In its nature it is a mild inflammation, generally commencing in the mucous membrane of the nose, and gradually extending through the fauces, to the larynx, and often to the whole length of the air passages. In one form, catarrh becomes epidemic, and takes the name of influenza. The history of the rise and progress of the several great influenzas, (for they have been somewhat numerous,) is a matter of great interest, but our limits compel us to omit it. Suffice it to say, that the progress of the disease is infinitely too rapid to be caused by contagion, and both its universality, and the impossibility of certainly avoiding an attack by extreme care, disprove its dependence directly upon any atmospheric vicissitudes of temperature or moisture. Although the ordinary causes of catarrh may hasten the attack, and heighten its violence, the source of influenza lies buried among the mysterious agents which probably produce all the varieties of epidemic disease. Influenza probably destroys more lives than the plague,

though secretly ; for it calls into action all lurking tendencies to consumption, scrofula, and other chronic diseases.

There is a peculiar form of chronic catarrh, the obstinacy of which depends upon a dyspeptic condition of the stomach. This kind only yields to remedies appropriate in that complaint. There is also another, peculiar to elderly people : being an habitual cough, accompanied with loose expectoration, occasional hoarseness, and increased secretion in the nose and fauces. This it is considered dangerous to cure ; but it is much relieved by a course of stimulating treatment, the reverse of that which is employed in a common cold.

Treatment.—In common catarrh, active or severe remedies are seldom needed. On the outset of a cold, take a hot beverage of lemonade, or mint tea, of some simple infusion ; this, aided by rest in a warm bed, will bring on perspiration, and cure the cold. One of the best and most powerful remedies, after fever has supervened, in bad cold, is a weak, hot infusion of boneset, (*eupatorium perfoliatum*.) A full pint should be drank at bed-time, and as hot as possible. It is necessary to take a mild cathartic, senna and salts, rhubarb and magnesia, or a seidlitz powder. If the fever run high, bleeding must be resorted to ; and as a febrifuge, ten drops of antimonial wine, with forty drops of sweet spirits of nitre, may be given every two hours. If the throat is sore, rub it with a liniment of spirits of camphor, hartshorn, and sweet oil in equal parts.

CHICKEN-POX.

Chicken-pox is a disease resembling small-pox, in its essential particulars. That which is now known to us as chicken-pox, has existed for many years ; yet it is still disputed whether the affection be distinct, or merely a variety of small-pox, modified either by the constitution of the individual, or by the circumstance of a previous infection. The latter opinion has been ably maintained by two eminent professors ; but the former view is adopted by the great majority of medical men of the present day, and the arguments in its favour seem to predominate.

Chicken-pox has often prevailed epidemically over extensive portions of this country, without any material variation from a standard form, and without ever assuming any peculiar symptoms. When observed side by side with small-pox,

in cities, there is seldom any difficulty in distinguishing them. The following description of the course of the disease, and the remarks which follow, will, we hope, place this important distinction in a clear light:—

Chicken-pox is sometimes, but not always, preceded by distinct fever. On the third day, the eruption appears in a form of small, inflamed spots; commonly showing themselves, first, on the back and breast. These spots have little prominence, are of a pale red hue, and exhibit smooth and shining surfaces. In a few hours, a small vesicle may be seen rising up in their centre, with a whitish, transparent, and extremely thin covering. On the second day of the eruption, the vesicles increase, and occupy nearly the whole of the inflamed spots, so as to resemble little bladders of fluid situated on narrow inflamed bases. Their form is irregular. They easily give way under pressure, and communicate to the finger a soft, elastic sensation. On the third day, the fluid becomes turbid, and by the fourth, many of the vesicles break, and form crusts; the contents of the others, condensing and hardening within them. On the fifth day, most of the vesicles are broken, and their little pellicles collapsing, adhere to the skin beneath, so as to confine a little fluid in the tubular ring which remains. The drying process goes on rapidly, and by the sixth day all the vesicles are converted into small, soft, brownish crusts, which gradually contract into scales. From the seventh to the tenth day, the scales separate and fall off, not in a single piece, but in small fragments, leaving some traces in the skin. The febrile symptoms, if any have been developed, decline on the second day of the eruption, and do not again recur. Chicken-pox, therefore, is easily distinguished from small-pox and varioloid.

SMALL-POX.

The universality of small-pox, and the severity of its symptoms, rendered it formerly an object of extreme interest, especially to parents; and although from the discovery of cow-pox, its ravages on life and beauty have been less general and fatal, it must still remain a matter of importance accurately to distinguish and successfully to treat it.

There are two forms assumed by small-pox, termed by physicians *distinct* and *confluent*, and popularly, though with less accuracy, a *good* and *bad* kind; which are so varied in

their symptoms and general termination, as to require a separate description.

DISTINCT SMALL-POX.—The patient is seized with coldness, or shiverings, which soon abate, and are followed by a hot stage, which lasts for two or three days, during which, children are liable to sickness and vomiting, to starting in their sleep, or to epileptic fits; and adults are disposed to sweating. Towards the end of the third day, the eruption appears, and increases during the fourth day. It commonly appears first on the face, then on the lower parts, and is completed over the whole body on the fifth day. The fever commonly abates upon the coming out of the eruption; the sickness, vomiting, fits, and other oppressive symptoms, go off; and the patient is, for the time, free of uneasiness. The eruption appears in small red spots, hardly rising above the skin, but which, by degrees, form pimples. On the fifth or sixth day, a small vesicle, containing a colourless fluid, appears on the top of each pimple. These get broader on the seventh day; and about the eighth, are raised into round pustules. These pustules are surrounded with a circular inflamed border; and as they increase in size, about the eighth day, the face is considerably swelled, and the eyelids are sometimes completely closed. The matter in the pustules now becomes thick and white, or yellowish, exactly resembling the matter of an abscess. On the eleventh day, the swelling of the face subsides, and the pustules appear quite full. On the top of each, a darker spot appears; and at this place, the pustule, on the eleventh day, or soon after, is spontaneously broken, and a portion of the matter oozes out; in consequence of which the pustule is shrivelled and subsides; while the matter oozing out, dries, and forms a crust upon its surface. Sometimes a little only of the matter oozes out; and what remains in the pustule becomes thick, and even hard. After some days, both the crusts and the hardened pustules fall off, leaving the skin which they covered of a brown, red color; and it is only after many days, that the skin in these places resumes its natural colour. In some cases, the parts covered suffer a scaling off of the skin, and a small pit or hollow is left. This is the course of things on the face, and successively, the pustules on the rest of the body take the same course. On the tenth and eleventh days, a swelling arises in the hands and feet, but this goes

off as the matter ripens. When the pustules on the face are numerous, there is some degree of fever about the tenth and eleventh days; but in distinct small-pox, it soon abates. An uneasiness in the throat, with a hoarseness of the voice, comes on about the sixth or seventh day, and much saliva flows from the mouth. This soon becomes thick and tough, and being with difficulty spit out, is productive of great uneasiness. The inside of the mouth and throat has numerous pustules; and in all probability, the whole internal surface of the bowels is affected in the same manner. In the apartment of those affected with small-pox, there is in many cases a strong, peculiar, and nauseous smell, which remains even for months after the disease has entirely subsided. When the pustules blacken, the whole appearance is very loathsome, and presents a striking contrast to the blooming health and beauty which existed but a few days before.

CONFLUENT SMALL-POX.—This kind of the disease is marked by the greater violence of the feverish symptoms in the first attack, by the strength of the convulsions, which sometimes destroy the patient even before the eruption appears; and by the very great number and clustering together of the pustules, especially on the face. After the eruption, the fever abates a little, but never goes off entirely; and soon after returns with severity, and continues through the whole course of the disease. The vesicles appear sooner on the tops of the pimples; they are not of a round figure, but irregular; and numbers of them run together, forming large patches. The matter does not become thick and yellow, as in the distinct small-pox, but the vesicles appear flat and shrivelled; and where the skin is to be seen, it is pale and flaccid. The secondary fever, about the eleventh day, is renewed with considerable violence.

It is not any difference in the contagion, or in the matter inserted, if the disease be communicated by inoculation, that causes the difference in the malignity of the disease; as it not unfrequently happens, that a child with small-pox of a very bad kind, imparts the disease to another, who takes it in a very mild and favourable way; and the reverse of this also very often happens. The cause seems to be in the state of the constitution receiving the infection.

After the small-pox has gone off, there is great tendency to boils and inflammatory symptoms in different parts of the

body; and, like the measles, it often calls into energy various unhealthy actions, producing swelling of the glands of the neck, ophthalmia, and the like. Many lose their sight by injuries done to the eyes, during the inflammatory period of the disease. Another unpleasant consequence is the pittings which occur after small-pox, totally disfiguring the countenance, and altogether altering its expression.

In the *treatment* of small-pox, we are not to expect the sickness, vomiting, heat, thirst and fever, which occur before the eruption appears, to be totally escaped by any class of remedies; but they may certainly be very much alleviated, and their influence on the subsequent disease much diminished. One very alarming symptom, especially in children, is the occurrence of convulsions. This symptom, as well as the very severe feverish ones, used to be much aggravated by the hot regimen formerly in vogue; and they are materially alleviated, or even prevented, by the free admission of cold air, and of tepid or even cold bathing. The same heating plan was undoubtedly the cause of the abundant confluent small-pox, so general under that practice; by which such numbers lost their lives, or their eye-sight, and were otherwise so much pitted and scarred. It is found that a cooling plan of treatment is by far the best, in the early stages of the disease; that it renders the eruptive fever moderate, and prevents many of the inflammatory and putrid symptoms which would otherwise occur afterwards. So confirmed is it by experiment, that the confluent nature of the small-pox is very much occasioned by heat, that on any particular portion of the body we can, by covering it with plasters, bring out a more plentiful crop of pustules than on others; and since the more rational and cooling plan has been in use, fewer persons appear with the numerous pits that formerly were left both on the face and other parts of the body. In an adult person, if the fever be very violent, it will be proper to admit cold air very freely; to give purgative medicines and cooling drinks; and in those of a full and plethoric habit, blood-letting will be necessary. The giving of an emetic at the commencement of small-pox is a good practice, both as determining to the skin, and freeing the stomach and first passages from undigested aliment, which would aggravate future symptoms. The irritation during the ripening of the pustules is so great, that we are compelled to allow anodyne medicines, taking care to prevent costiveness by laxative

medicines and clysters. For the swelling of the throat and the salivation, we apply blisters externally, and employ cleansing gargles of various acids, and preserved fruits. When secondary fever occurs in small-pox, it is to be treated by purgatives, cool regimen, and prudent blood-letting. The convalescence is sometimes very tedious; and, like measles, small-pox excites scrofula and other disorders of the constitution. Sometimes large boils form in different parts of the body; these are to be treated with poultices and the usual dressings; and in many cases these boils, even when large and painful, may be considered as salutary, and having a tendency to diminish unhealthy action in the other parts of the body. No means have yet been devised to prevent the pitting left by small-pox.

DYSPEPSIA.

That state of the stomach in which it is incapable of performing its appropriate function, of changing the received food into chyle, is termed dyspepsia. Whether the immediate cause of dyspepsia is to be sought in the debility of the muscular fibre of the organ, or in the defect or bad character of its secretions, is a question not easily determined in all cases. Other symptoms of dyspepsia are oppression at the stomach after food is taken; a sense of weight and dragging about the limbs while the digestive process is going on; a sensation of gnawing rather than hunger is felt whenever the stomach is empty; a disposition to sleep, which, when a full repast has been taken, is almost irresistible; and frequently a heavy dull pain about the head. The modes in which indigestion is induced are nearly innumerable; but one very universal cause demands the especial attention of Americans, namely, the habit of too rapidly swallowing food, by which sufficient time is not allowed for the process of mastication, and for the secretions of the fluid which aid digestion. The general means by which dyspepsia may be avoided, are to be inferred from the nature of the causes by which it has been produced. It is not always that even a bad habit can be wholly omitted with impunity, nor will its discontinuance always repair the mischief which it has occasioned. But the change from sedentary to active habits is one of more difficulty. The sedentary student may be fully persuaded of the advantages of exercise, and may, with all earnestness,

attempt a reform; but if the exercise be tedious or distasteful; if he walk without an object or interest, merely to accomplish a task, and with his mind still occupied by his previous studies, he will gain little benefit. Exercise must be an actual relaxation and amusement, or it will fail in producing its effect. It is on this ground that travelling, which combines bodily motion with a change of scene and pursuit, is so often recommended. Exercise should produce fatigue, but not exhaustion. Indigestion arising from ardent spirits can be cured only by abandoning their use, and substituting therefor some of the bitter tonics. That from coffee can generally be obviated by the substitution of tea; and that from the use of green tea by the use of black, which produces, usually, little disturbance either of the stomach or the nervous system. Opium in every form must be totally abstained from. To obviate the cravings occasioned by its disuse, the bitter tinctures which contain a narcotic principle, such as those of valerian, hops, &c., may be employed. The remedial measures for giving tone to the stomach, and for improving the character of the secretions, are in general those which are termed tonics. They are supposed to exert their action on the muscular fibre. They are generally bitter substances, and are employed either in their simple state, or in the form of tincture. Among the most popular of these preparations may be mentioned Huxham's, or compound tincture of bark, which, in addition to its principal ingredient, contains snake root, saffron, orange peel, &c. Whatever virtue the above articles may possess in their character of tonics, they are still to be regarded as subordinate to those more general means which communicate vigor to the stomach by strengthening the whole system. Such are the breathing of fresh, pure air; the due exercise of the muscular system; cold and warm bathing; and the maintenance of a well regulated mind and a cheerful temper. Dr. Chapman recommends the following pills, three of which to be taken at night when going to bed,

Take Pulv. Rhubarb,	-	-	-	-	15 grains.
" " Aloes,	-	-	-	-	12 "
" " Gamboge,	-	-	-	-	3 "
" " Gum Myrrh,	-	-	-	-	3 "
" " Charcoal,	-	-	-	-	2 "
" Oil Anniseed,	-	-	-	-	4 drops.

Mix, and make three pills to be taken for a dose, to be continued until the disease is removed.

ERYSIPELAS.

Erysipelas is an eruptive fever of a typhoid character, occurring more frequently in persons in advanced life, or those of debilitated constitutions, but confined to no age or condition. It often breaks out as a limited epidemic, in hospitals, &c. Its approach is insidious, the preceding fever being often very slight. Sometimes there is chill, succeeded by heat, and accompanied by drowsiness, and even delirium. On the third and fourth day a redness shows itself in some part of the person. At first this is not very distinct, and the line which separates it from the surrounding parts not very well marked; but it gradually spreads in all directions, and as it advances, becomes more prominent, and its outline more perfectly defined. When it attacks the face, the nostrils become swollen, tense and painful, and the eyelids so much enlarged as often entirely to obstruct the sight. In the majority of cases, perhaps only one side is affected; and then the boundary may be traced along the ridge of the nose, bisecting the lips, the chin and the scalp. The distortion of the features, especially of the mouth, is among the most striking appearances. On examination with the hand, the morbid action is found to involve at least the whole thickness of the true skin, to which it imparts an unnatural hardness and a peculiar fleshy feel. At first, slight pressure causes this colour to disappear, which returns when this is removed. The parts first attacked, and the others in succession, begin to form blisters in irregular patches on the second or third day. The fluid effused is yellowish or livid, and oozes out through small crevices. On parts where blisters do not appear, the skin usually dries into fine scales, like those of measles. The inflammation and accompanying fever usually continue from eight to ten days. During this time, however, the eruption trails along gradually and successively over different parts, so that the process in a given part is completed in somewhat less time; at length the disposition to spread ceases, and the disease subsides. The signs which indicate danger in this disease are the continuance or renewal of the delirium, and the occurrence of coma or torpidity, from which the patient is with difficulty aroused. These however, do not necessarily indicate a fatal termination; for persons in advanced life often exhibit both delirium and coma for many days and yet recover.

The treatment must vary with the condition of the patient. If he be accustomed to drinking or improper food, if nausea and dyspeptic headache be present, particularly if accompanied with a bad taste in the mouth, an emetic is proper, and should not be withheld by any fear of tendency to the head. One or two cooling and moderate purgatives are sometimes needed; but in general, all very active evacuations are improper. When there is much prostration, the decoction of Peruvian bark, or a solution of quinine, may be given in such quantities as the stomach will bear. As external applications, great relief is often given by dusting the part with dry rye meal, and rags wet with lead water frequently have a happy effect. The watery solution of opium, so useful in erysipelas of other parts, is inadmissible in that of the face. The mucilaginous washes are seldom beneficial, and we have always found the much lauded unctuous preparations decidedly injurious. In erysipelas which is advancing with rapidity along an arm or leg, its progress may often be checked by a narrow blister, applied so as to surround the limb over the line where the inflammation terminates.

The erysipelas of infants is a peculiar disease, which usually shows itself within a few days, sometimes hours, after birth; in fact it is sometimes congenital. It commences ordinarily about the navel, and its progress involves the lower part of the abdomen, the hip, thigh, &c., of one side. Vesication follows, and sometimes even ulceration of the parts; but in infants at the period just alluded to, the disease may prove fatal without reaching either of these stages.

Local erysipelas from wounds, may occur on any part of the body, but most frequently follows on wounds of the scalp, and then assumes much of the character of general erysipelas, as already given.

ITCH.

The itch has been described as a cutaneous inflammation without fever, consisting of vesicles containing a serous or limpid fluid, which may appear on any part of the surface, but are found principally in the flexures of the joints, and between the fingers and toes. In the severer cases, and later stages of the affection, the vesicles degenerate into pustules, containing a yellow matter, and these sometimes coalescing,

form irregular and unsightly blotches. Itch may spontaneously arise from filthy and negligent habits; but it is usually received by contagion. Adults take the disease less readily, and when they do receive it, it remains dormant for a long time. Itch, at its first appearance, is sometimes difficult to be distinguished from other eruptions; but when it has become confirmed, the co-existence of the pimple, the vesicle, the pustule, and the scab, the absence of fever, the close aggregation of the eruption in the particular parts already mentioned, and the circumstances under which it shows itself, are sufficient to determine its nature. When itch has continued for long time, and extended itself to the surface, generally, its sudden removal by treatment has been said to produce internal disease, and even mental derangement; but as a general rule, no hesitation should be felt in curing it by the speediest possible method; for it is never known to cease spontaneously.

In the *treatment* of itch, various applications have been employed with nearly equal success; since it seems sufficient to induce a new action in the parts by some active stimulus. Thus sulphur, zinc, mercury, arsenic, alum, tobacco, and tar, can each boast of its cures. The common mode of employing sulphur, is to prepare an ointment of this article with lard, and rub it well into the affected parts, for three or four successive nights, before a warm fire; after which the skin must be thoroughly washed. It is usual to administer the sulphur internally, in slightly laxative doses—an innocent treatment, and one which may prevent a repulsion of the disease from the skin. Other ointments and lotions for the itch are in common use; but it is needless to describe them.

The following will be found a good application;—

Take Red precipitate,	-	-	-	-	20 grains.
“ Flour sulphur,	-	-	-	-	1 drachm.
“ Hogs lard,	-	-	-	-	2 ounces.
Mix—and rub once a day until cured.					

NERVOUS DISEASES.

Of all diseases incident to mankind, those of the nervous kind are the most complicated and difficult to cure. A volume would not be sufficient to point out their various appearances. They imitate almost every disease; and are seldom alike in two different persons, or even the same per-

son at different times. Proteus-like, they are continually changing shape; and upon every fresh attack, the patient thinks he feels symptoms which he never experienced before. Nor do they only affect the body; the mind likewise suffers, and is often thereby rendered extremely weak and peevish. The low spirits, timorousness, melancholy, and fickleness of temper, which generally attend nervous disorders, induce many to believe that they are entirely diseases of the mind; but this change of temper is rather a consequence, than the cause of nervous diseases.

Causes.—Every thing that tends to relax or weaken the body, disposes it to nervous diseases, as indolence, excessive venery, drinking too much tea, or other weak watery liquors warm, frequent bleeding, purging, vomiting, &c. Whatever hurts the digestion, or prevents the proper assimilation of the food, has likewise this effect: as long fasting, excess in eating or drinking, or unwholesome aliments, an unfavourable posture of the body, &c.

Nervous disorders often proceed from intense application to study. Indeed, few studious persons are entirely free from them. Nor is this at all to be wondered at; intense thinking not only preys upon the spirits, but prevents the person from taking proper exercise, by which means the digestion is impaired, the nourishment prevented, the solids relaxed, and the whole mass of humours vitiated. Grief and disappointment likewise produce the same effects. I have known more nervous patients who dated the commencement of their disorders from the loss of a husband, a favourite child, or from some disappointment in life, than from any other cause. In a word, whatever weakens the body, or depresses the spirits, may occasion nervous disorders; as unwholesome air, want of sleep, great fatigue, disagreeable apprehensions, anxiety, vexation, &c.

Symptoms.—We shall only mention some of the most general symptoms of these disorders, as it would be both a useless and impracticable task to enumerate the whole. There is a great tightness of the breast, with difficulty of breathing; violent palpitations of the heart; sudden flushings of heat in various parts of the body; at other times a sense of cold, as if water was poured on them; flying pains in the arms and limbs; pains in the back and belly, resembling those occasioned by gravel; the pulse very variable, sometimes uncommonly slow, and at other times very quick;

yawning, the hiccup, frequent sighing, and a sense of suffocation, as if from a ball or lump in the throat; alternate fits of crying and convulsive laughing; the sleep is unsound, and seldom refreshing; and the patient is often troubled with the nightmare.

As the disease increases, the patient is molested with vertigo, syncope, headaches, cramps, and fixed pains in various parts of the body; the eyes are clouded, and often affected with pain and dryness; there is a noise in the ears, and often a dulness of hearing; in short, the whole animal functions are impaired. The mind is disturbed on the most trivial occasions, and is hurried into the most perverse commotions, inquietudes, terror, sadness, anger, diffidence, &c. The patient is apt to entertain wild imaginations, and extravagant fancies; the memory becomes weak, and the judgment fails.

Nothing is more characteristic of this disease than a constant dread of death. This renders those unhappy persons who labour under it peevish, fickle, impatient, and apt to run from one physician to another; which is one reason why they seldom reap any benefit from medicine, as they have not sufficient resolution to persist in any one course till it has time to produce its proper effects. They are likewise apt to imagine that they labour under diseases from which they are quite free; and are angry if any one attempts to set them right, or laugh them out of their ridiculous notions.

Regimen.—Persons afflicted with nervous diseases ought never to fast long. Their food should be solid and nourishing, but of easy digestion. Fat meats and heavy sauces are hurtful. All excess should be carefully avoided. They ought never to eat more at a time than they can easily digest; and heavy suppers are to be avoided. If they feel themselves weak and faint between meals, they ought to eat a bit of bread, and drink a glass of wine. Though wine in excess enfeebles the body, and impairs the faculties of the mind, yet taken in moderation, it strengthens the stomach, and promotes digestion. Wine and water is a very proper drink at meals; but if wine sours on the stomach, or the patient is much troubled with wind, brandy and water will answer better. All weak and warm liquids are hurtful; as tea, coffee, &c. People may find a temporary relief in the use of these, but they always increase the malady, as they weaken the stomach, and hurt digestion. Whatever immediate ease the patient may feel from the use of ardent spirits,

they are sure to aggravate the malady, and prove certain poisons at last. These cautions are the more necessary, as most nervous people are peculiarly fond of tea and ardent spirits; to the use of which many of them fall victims.

Exercise in nervous disorders is superior to all medicines. Riding on horseback is generally esteemed the best, as it gives motion to the whole body, without fatiguing it. I have known some patients, however, with whom walking agreed better, and others who were most benefitted by riding in a carriage. Every one ought to use that which he finds most beneficial. Long sea voyages have an excellent effect; and to those who have sufficient resolution, we would by all means recommend this course. Even change of place, and the sight of new objects, by diverting the mind, have a great tendency to remove these complaints. For this reason a long journey, or a voyage, is of much more advantage than riding short journeys near home.

A cool, dry air is proper, as it braces and invigorates the whole body. Few things tend more to relax and enervate than hot air, especially that which is rendered so by great fires, or stoves in small apartments. But when the stomach or bowels are weak, the body ought to be well guarded against cold, especially in winter, by wearing a thin flannel waistcoat next the skin. This will keep up an equal perspiration, and defend the alimentary canal from many impressions to which it would otherwise be subject upon every sudden change from warm to cold weather. Rubbing the body frequently with a flesh-brush, or a coarse linen cloth, is likewise beneficial, as it promotes the circulation, perspiration, &c. Persons who have weak nerves ought to rise early, and take exercise before breakfast, as lying too long a-bed cannot fail to relax the solids. They ought likewise to be diverted, and to be kept as easy and cheerful as possible. There is not any thing which hurts the nervous system, or weakens the digestive powers, more than fear, grief, or anxiety.

Treatment.—Though nervous diseases are seldom radically cured, yet their symptoms may sometimes be alleviated, and the patient's life rendered at least more comfortable by proper medicines.

When the patient is costive, he ought to take a little rhubarb, or some other mild purgative, and should never suffer his body to be long bound. All strong and violent purga-

tives are, however, to be avoided, as aloes, jalap, &c. I have generally seen an infusion of senna and rhubarb answer very well. This may be made of any strength, and taken in such quantity as the patient finds necessary. When the digestion is bad, or the stomach relaxed and weak, the following infusion may be used with advantage:—

Take of Peruvian bark, an ounce; gentian root, orange peel, and coriander seed, of each half an ounce; let these ingredients be all bruised in a mortar, and infused in a bottle of brandy or rum, for the space of five or six days. A tablespoonful of the strained liquor may be taken in half a glass of water, an hour before breakfast, dinner, and supper.

Few things tend more to strengthen the nervous system than cold bathing. This practice, if duly persisted in, will produce very extraordinary effects; but when the liver, or other *viscera*, are obstructed, or otherwise unsound, the cold bath is improper. It is therefore to be used with very great caution. The most proper seasons for it are summer and autumn. It will be sufficient, especially for persons of a spare habit, to go into the cold bath three or four times a week. If the patient be weakened by it, or feels chilly for a long time after coming out, it is improper.

Opiates are generally extolled in these maladies; but as they only palliate the symptoms, and generally afterwards increase the disease, we would advise people to be extremely sparing in the use of them, lest habit should render them at last absolutely necessary.

It would be an easy matter to enumerate many medicines which have been extolled for relieving nervous disorders; but whoever wishes for a thorough cure, must expect it from regimen alone; we shall therefore omit mentioning more medicines, and again recommend the strictest attention to diet, air, exercise, and amusements.

RHEUMATISM.

This disease has often a resemblance to the gout. It generally attacks the joints with exquisite pain, and is sometimes attended with inflammation and swelling. It is most common in the spring, and towards the end of autumn. It is usually distinguished into acute and chronic: or the rheumatism with and without a fever.

Causes.—The causes of a rheumatism are frequently the

same as those of an inflammatory fever, viz., obstructed perspiration. Sudden changes of the weather, and all quick transitions from heat to cold, are very apt to occasion the rheumatism. The most extraordinary case of a rheumatism that I ever saw, where almost every joint of the body was distorted, was a man who used to work one part of the day by the fire, and the other part of it in the water. Very obstinate rheumatisms have likewise been brought on by persons not accustomed to it, allowing their feet to continue long wet. The same effects are often produced by wet clothes, damp beds, sitting or lying on the damp ground, travelling in the night, &c.

The rheumatism may likewise be occasioned by excessive evacuations, or the stoppage of customary discharges. It is often the effect of chronic diseases, which vitiate the humours; as the scurvy, the *lues venerea*, obstinate autumnal ague, &c.

Symptoms.—The *acute* rheumatism commonly begins with weariness, shivering, a quick pulse, restlessness, thirst, and other symptoms of fever. Afterwards the patient complains of flying pains, which are increased by the least motion. These at length fix in the joints, which are often affected with swelling and inflammation. If blood be let in this disease, it has generally the same appearance as in the pleurisy.

Medical Treatment.—In this kind of rheumatism the treatment of the patient is nearly the same as in an acute or inflammatory fever. If he be young and strong, bleeding is necessary, which may be repeated according to the exigencies of the case. The body ought likewise to be kept open by emollient clysters, or cool, opening liquors; as decoctions of tamarinds, cream of tartar, senna tea, and the like. The diet should be light, and in small quantity. After the feverish symptoms have abated, if the pain still continues, the patient must keep his bed, and take such things as promote perspiration; as wine whey, with solution of the acetated ammonia, &c. He may likewise take, for a few nights, at bed time, in a cup of wine whey, a drachm of the cream of tartar, and half a drachm of gum guaiacum in powder.

The *chronic* rheumatism is seldom attended with any considerable degree of fever, and is generally confined to some particular part of the body, as the shoulders, the back, or the loins. There is seldom any inflammation or swelling in this

case. Persons in the decline of life are most subject to the chronic rheumatism. In such patients, it often proves extremely obstinate, and sometimes incurable.

In this kind of rheumatism, the regimen should be nearly the same as in the acute: cool and diluting diet, consisting chiefly of vegetable substances.

Blisters are sometimes employed in this complaint; but they appear to be most serviceable in those cases where the disease partakes of the nature of acute rheumatism, or where the pain is fixed in any particular joint; and a repetition of fresh blisters will be preferable to keeping up a constant sore by stimulating the part with savine or other ointments; and produce a greater effect upon the disease.

Whatever liniment is applied to the affected parts, it should be rubbed in frequently, and with active friction, by the patient himself. The friction can hardly be too long continued at one time, or too frequently resorted to; for it has done wonders in curing desperate cases. I have seen bad cases of chronic rheumatism cured by the steady use of friction, in the following manner:—Take of spirits of camphor, spirits of hartshorn, and sweet oil, equal parts; mix—make a liniment. Take of this mixture about four or five tablepoonsful, and rub it on the parts affected, one hour by the clock, every day for ten days or two weeks. I will guarantee it will effect a perfect cure. Let the patient at the same time take a teaspoonful of the tincture of gum guaiacum in molasses, daily.

The internal remedies most generally recommended in chronic rheumatism are sudorifics, and medicines of a stimulating nature, which abound in essential oils and resins; and therefore volatile alkaline salts, guaiacum, turpentine combined with Cinchona bark, and the like, may be given in any of the undermentioned forms.*

Cold bathing, especially in salt water, often cures the rheumatism. We would also recommend exercise, and wearing flannel next the skin.

* Take Guaiacum, in powder,	-	-	-	-	6 grains.
“ Antimonial powder,	-	-	-	-	3 do.
“ Syrup of ginger, enough to form a bolus, to be taken three times a day.					
Or—					
Take Ammoniated tincture of guaiacum,	-	-	-	-	2 drachms.
“ Spirit of cinnamon,	-	-	-	-	$\frac{1}{2}$ ounce.
“ Decoction of bark,	-	-	-	-	1 do.
“ Solution of tartarized antimony,	-	-	-	-	24 drops.
Make a draught, to be taken two or three times a day.					

Persons afflicted with the scurvy are very subject to rheumatic complaints. The best medicines in this case are biters and mild purgatives. These may either be taken separately or together, as the patient inclines. An ounce of Peruvian bark, and half an ounce of rhubarb, in powder, may be infused in a bottle of wine, and one, two, or three wine glasses of it taken daily, as shall be found necessary for keeping the body gently open. In cases where the bark itself proves sufficiently purgative, the rhubarb may be omitted.

Chronic rheumatism sometimes affects the lumbar region, with an acute pain shooting down into the os sacrum, so that the patient cannot stand upright without suffering considerable pain and inconvenience; nor does he feel any ease when in bed. This affection is known by the name of lumbago, and, as it frequently does, when it fixes itself in the hip-joint, it is called sciatica. Both of these affections are to be treated in the same manner as chronic rheumatism. In sciatica and local pains of the hip and loins, turpentine is often given with relief, as is also guaiacum combined with the essential oil of sassafras.

PILES.

Hemorrhoides, or piles, consist in a diseased state of the blood vessels of the rectum and anus, attended with tumors, and generally with a flow of blood, which often takes place at stated intervals. The tumors, forming the piles, are either seated within the anus, or at its verge; and occasionally one tumid ring surrounds it completely. When no blood is discharged from these tumors, they are popularly denominated blind piles. These are, in fact, portions of the external edge of the gut, strongly injected with blood, and in a state of chronic inflammation. This state of engorgement and inflammation causes the hemorrhage with which piles are so generally attended, and thus gives temporary relief by evacuating the overloaded vessels. Piles are sometimes preceded by a sense of weight in the back, loins, and lower part of the abdomen, together with uneasiness of the stomach, flatulency of the bowels, and other symptoms of indigestion. On going to stool, a pungent pain is felt in the fundament, and small tumors are found to project beyond its verge. If a quantity of blood is discharged from them, considerable re-

lief from the pain and uneasiness is obtained. If, however, no hemorrhage occurs, the patient experiences great torture every time he goes to stool, and feels an inconvenience when sitting down on any hard seat. Frequently, however, the symptoms are less severe, but nevertheless very troublesome, as the patient is, from time to time, annoyed by their becoming engaged within the sphincter of the gut, and causing intense pain; considerable uneasiness is, also, frequently suddenly experienced when the patient is walking, or has been standing long. Piles may sometimes continue for a long time without the general health of the patient being much affected; while in other cases, particularly in weak and irritable constitutions, the health suffers considerably; the face becomes pale, the eyes appear sunk, from the dark circle which surrounds them; the functions of the stomach are impaired; the feet swell, and there is a sensation of coldness, with shivering, experienced by the patient, with a hard, quick pulse, dryness of the mouth, thirst, &c. The piles, also, occasionally cause abscesses to form in the vicinity of the anus, terminating in fistula. Piles are not unfrequently met with in persons predisposed to, or labouring under consumption; they are a frequent accompaniment also of chronic diseases of the liver, indigestion, &c.

The general causes of piles are long continued sedentary habits; food of a stimulating or indigestible kind; habitual costiveness; hard riding on horseback; the abuse of purgatives, especially those containing aloes, &c.

The blood discharged by piles is most generally of a brilliant red, excepting in a few rare cases, in which the veins about the anus are dilated, and accidentally burst, when the blood is dark, and often mixed up with the feces.

Those individuals who have been for a long time subject to piles, especially those attended with a discharge of blood, should be extremely cautious not rashly to suspend the evacuation, as this may be productive of dangerous, or even fatal consequences; apoplexy, spitting or vomiting of blood, violent fevers, inflammations of the abdominal viscera, or, in the predisposed, consumption of the lungs, have been known to result almost immediately upon an imprudent suppression of the hemorrhoidal flux. When, however, they are strictly a local disease, unattended with other affections of the system, or any predisposition to disease of the head, or chest, and especially when they are of recent origin, by a proper

treatment they may be removed without any injury, but much benefit to the patient.

In the commencement, the symptoms attendant upon piles, are of an inflammatory nature, and in the young and plethoric, require bleeding from the arm, or by cups, from the lumbar region, a low spare diet, and perfect rest upon a settee or sofa. The bowels should be kept regularly open, by means of equal parts of sulphur and cream of tartar, in the dose of a teaspoonful, three or four times a day, or by a diet of rye mush and molasses. In regard to the local treatment; in some cases, a judicious application of leeches to the inflamed tumors about the anus, will be advisable, followed by cold applications; as compresses wet with cold water or lead water, and injections of cold water into the rectum. Even when leeches are not considered advisable, the application of cold water will be found beneficial. When the discharge of blood is very considerable, which, however, is seldom the case, it may require for its suppression a compress to the bleeding pile, if it be external; or if internal, the insertion into the anus of a portion of a wax candle, or of the gut of some animal, subsequently injected with cold water and tied. When the disease has been recent, and the constitution sound, by these means, with a careful avoidance on the part of the patient, of the exciting causes by which it was produced, and a well regulated diet and regimen, the return of the piles may, in general, be prevented. But when the disease has been of long standing, the general system debilitated, and the extremity of the rectum is found to be surrounded with several firm, indolent, but painful tumors, it is important for the surgeon to attempt their removal by local means. These consist of certain astringent applications, compression, or a surgical operation. Astringent applications have been often found highly beneficial; one of the very best is, perhaps, the gall ointment; but a strong solution of sugar of lead, or of white vitriol, or a decoction of oak bark, as a wash, may likewise be used. In some cases, puncturing each pile with a lancet will occasionally cause the entire removal of the disease. Compression is chiefly resorted to when the piles are seated within the anus; an instrument called a rectum bougie, is employed to produce the necessary compression. When a surgical operation is decided upon for the removal of piles, they may be cut off by the knife or scissors, or strangulated by a ligature passed around them at

their base. The comparative advantages of these two modes of operating, and the particular cases to which one or the other is especially adapted, must be left entirely to the judgment of the surgeon.

When a sudden or imprudent suppression of the hemorrhoidal flux is followed by violent headache, pain of the chest, or abdomen, the premonitory symptoms of apoplexy, or a discharge of blood from the lungs or stomach, the remedies are bleeding from the arm; active purgatives by the mouth, as aloes, soap and gamboge combined; purgative injections into the rectum; warm fomentations to the anus, either by poultices or by the patient sitting over the steam of hot water. If these means fail, leeches should be applied around the anus, and the patient's feet and legs immersed in a hot bath, to which a teacupful of mustard has been added. The utmost attention must for some time be paid by the patient to his diet and regimen. His food should be light and spare; his drink water; and he should use daily exercise in the open air.

HERNIA, OR RUPTURE.

This dangerous and very common disease deserves especial notice in a popular work; because, even in this country, where it is supposed to be much less common than in some parts of Europe, it probably affects every eighth or tenth individual.

The pressure of the abdominal muscles upon the bowels, in jumping, lifting, sudden falls, and all violent exertions of the body, sometimes forces a portion of some bowel outward through the passages. This accident constitutes hernia, or rupture. The bowel always thrusts before it the peritoneal lining of the abdomen, in the form of a sac, within which the bowel lies. The sac tears away the loose cellular tissue of the passage, and stretches the tendinous fibres which surround its outlet. The whole hernia then enlarges into a soft or doughy tumor, according to the nature of its contents, lying beneath the skin and superficial fascia. As every hernial patient is constantly in some danger of strangulation, and every one who labours under strangulated hernia is in considerable danger of death, the symptoms, and, to a certain extent, the treatment, should be known to all. On its first occurrence, strangulation is generally mistaken for colic; and,

except in the severity of the pain at the ring, the pains and symptoms, for some time, scarcely differ from those of a very bad colic. Almost invariably there is one loose discharge from the bowels near the moment of strangulation; it is even violent and copious in some instances; and occasionally, but very rarely, a second follows very soon after. This seems astonishing; as, in most cases of strangulated hernia, the whole calibre of some part of the intestine is so tightly grasped by the ring, that nothing can possibly pass; but in fact, these evacuations come exclusively from the part of the alimentary canal below the stricture; and this portion once evacuated, all farther passages are impossible until the strangulation is relieved. Soon after the strangulation occurs, the hernial tumor becomes tender to the touch, and commences to swell; severe pains are usually felt both at the seat of stricture and about the umbilicus; the latter being often more distinctly paroxysmal. As the case advances, if left to run its course, the tumor increases in size, appears successively red, purple, and livid, while its tenderness becomes continually more marked, and is extended to the abdomen, so that the patient can scarcely bear to be touched on any part of its surface. Contemporaneously with these local changes, the countenance assumes first an anxious, then a haggard expression; the pulse rises and becomes very frequent, then diminishes in volume, and becomes gradually more and more feeble and fluttering; while the stomach is affected in succession with nausea, vomiting, hiccough, and finally the discharge by the mouth of fecal matter.

In protracted cases—those, for instance, which have continued from four to eight days—it is usual for the symptoms, when at their point of greatest severity, to cease suddenly and entirely without any return of the bowel, leaving the patient entirely calm and free from pain. This apparently flattering condition of things is the immediate precursor of death. It marks the moment when the mass of intestines, inflamed by the accident, sink into a state of mortification.

Treatment.—The moment strangulation occurs, a good surgeon should be sent for, if possible; but as this is not always the case, not a moment should be lost by the patient and his friends, in attempting reduction before the arrival of the surgeon. The patient should undress, and lie on his back in bed; the affected part should be thoroughly shaved. If the hernia be not extremely large, and old, or irreducible

in its character, the following course should be pursued:— The head and shoulders, as well as the pelvis, should be properly raised by pillows, the thighs should be completely bent, and the heels drawn up high in bed. If the hernia should be located in the groin, the thigh on the affected side should be most elevated, and should also be carried a little across its fellow. The patient should now steadily endeavour to return the bowel by pressing it back with the hand. These efforts may be continued for half an hour; when, if ineffectual, and no surgeon has been procured, other measures may be pursued by an intelligent assistant. The patient, if vigorous, may be freely bled from the arm, and the coldest local applications may be made; when ice cannot be procured, the powder of muriate of ammonia thrown into water, may be used, to produce intense cold. Whatever article is employed, it should be done faithfully. The only precaution necessary is to avoid the actual freezing of the tumor. While this cold is being applied, it is sometimes useful to place one or two heavy smoothing irons upon the hernia; for we have repeatedly seen the reduction happily effected under the steady pressure of such instruments without the aid of hands. After continuing the cold for full half an hour, the patient or assistant should again attempt the reduction. If still unsuccessful, the cold should be continued; and if there be much disposition to inflammation about the part, leeches may be applied over or around the neck of the sac. A powerful injection of senna and salts will sometimes do essential service by calling strongly into play the peristaltic action of the lower part of the alimentary canal; and the smallest escape of feces from the strictured bowels will often pave the way for the reduction of large and obstinately strictured hernia. The taxis, or application of the hands, should be renewed every half hour; and great care must be taken to act steadily, regularly, and patiently, covering as much as possible of the tumor with the hands, and avoiding any severe pressure upon one spot. The direction of the pressure may be changed a little from side to side with advantage, and requires to be varied with the kind of hernia, and its route of escape. Details on this subject cannot be given here, but we would earnestly advise every director of a large plantation, or manufactory, as well as every principal of a boarding school, to make himself somewhat acquainted with the anatomy of the inguinal and femoral canal, in order to become more

capable of usefulness to those under his charge. We might continue the subject of reduction through much greater space, were we to mention the very numerous remedies recommended, and occasionally employed, by various practitioners; but it is believed that the directions already given, are all that can be at once safely and usefully followed by the domestic practitioner.

GRAVEL.

The urine, in its healthy state, always contains more or less alkaline matter, held in solution by its peculiar acid, the uric or lithic. This alkali, which is for the most part of a calcareous character, is immediately secreted by the kidney itself. If either of these principles be in excess in proportion to the other, a deposit will take place, either acid or alkaline. In the former case, it sometimes concretes in the kidney, where it forms masses of considerable size, and sometimes is carried on to the bladder, where it shows itself in the form of red sand. In the latter case, the alkali, then set free, immediately unites with the phosphoric or oxalic acid, most commonly the former, which is always present, and forms a phosphate or oxalate of lime. Another form of calculous disease, and by far the most painful and formidable, is that of a solid concretion in the bladder itself, constituting what is usually termed stone. These concretions are formed in the bladder by a gradual deposit from the urine itself, around a central nucleus, which may be either a calculus which has made its way from the kidney, or some foreign substance introduced accidentally into the cavity. The most painful circumstance connected with this disease, is the passage of the calculous concretion, when already large, from the kidney into the bladder. During this process there is fixed pain in the region of the affected kidney, with a numbness of the thigh on the same side, the pain alternating with a sense of weight in the part. The pain is acute, and accompanied with nausea and faintness from the time when the calculus has entered the ureter, until it enters the bladder; after which there is a remission. If the stone should become engaged in the urethra, after reposing for a time in the bladder, its farther passage is attended with some pain; but the nausea that accompanied its previous course is absent; and the pain, instead of being deep-seated, is referred to the opening of the canal,

and the actual seat of the concretion. While the stone is passing from the kidney to the bladder, the urine is usually high coloured, and deposits a reddish sediment, not unlike coffee grounds, the effect, probably, of altered blood flowing from laceration of the mucous membrane of the ureter.

The presence of stone in the bladder can only be certainly determined by actual examination by a surgeon; but if after the passage of one or more calculi from the kidney, there is experienced a permanent difficulty in the evacuation of urine, with a frequent desire to discharge it, and this accompanied with acute pain at the termination of the urethra, the presence of stone in the bladder may well be suspected. When no passage of calculus or discharges of sand have been noticed, the existence of the disease is less readily recognized; but that some cause of irritation is present, will be perfectly evident; since, in addition to the pain, it will soon be observed that the stream of water once commenced, is suddenly interrupted before its completion. As the stone enlarges, there will be a dull pain about the neck of the bladder, while the irritation, extending itself to the rectum, will produce a straining and frequent desire to evacuate the bowels. These latter symptoms do not absolutely determine the actual presence of calculus, but point out the propriety of a strict examination.

Treatment.—In the treatment of gravel, the domestic practitioner can do but little. Bleeding is very necessary in the beginning. Cloths dipped in hot water, and applied to the affected part, and renewed as they grow cool. Besides the fomentations, rub the part with sweet oil, and take gentle diuretics: such as uva ursi, sub-carbonate of soda, turpentine, parsley, &c.

DIABETES.

The diabetes is a frequent and excessive discharge of urine. It is seldom to be met with among young people: but often attacks persons in the decline of life, especially those who follow the more violent employments.

Causes.—A diabetes is often the consequence of acute diseases, as fevers, fluxes, &c., where the patient has suffered by excessive evacuations. It may also be occasioned by great fatigue, as riding long journeys upon a hard trotting horse, carrying heavy burdens, running, &c. It may be brought on

by the use of strong, stimulating, diuretic medicines, as tincture of cantharides, spirits of turpentine, and such like. In a word, this disease may either proceed from too great a laxity of the organs which secrete the urine, from something that stimulates the kidneys too much, or from a thin, dissolved state of the blood, which makes too great a quantity of it run off by the urinary passages.

Symptoms.—In a diabetes, the urine generally exceeds in quantity all the liquid food which the patient takes. It is thin and pale, of a sweetish taste, and an agreeable smell. The patient has a continual thirst, with some degree of fever; his mouth is dry, and he spits frequently a frothy spittle. The strength fails, the appetite decays, and the flesh wastes away till the patient is reduced to skin and bone. There is a heat of the bowels; and frequently the loins, testicles, and feet, are swelled.

Regimen.—Every thing that stimulates the urinary passages, or tends to relax the habit, must be avoided. For this reason, the patient should live chiefly on solid food. His thirst may be quenched with acids: juice of lemon, or vinegar. The mucilaginous vegetables—as rice, sago, and salop, with milk, are the most proper food. Of animal substances, shell-fish are to be preferred: as oysters, crabs, &c.

The patient ought daily to take exercise, but it should be so gentle as not to fatigue him. He should lie upon a hard bed or mattress. Nothing hurts the kidneys more than lying too soft. A warm, dry air, the use of the flesh-brush, and every thing that promotes perspiration, is of service. For this reason, the patient ought to wear flannel next his skin. A large strengthening plaster may be applied to the back; or, what will answer better, a great part of the body may be wrapped in plaster.

Treatment.—Gentle purges, if the patient be not too much weakened by the disease, have a good effect. They may consist of rhubarb, with cardamom seeds, or any other spices, infused in wine, and may be taken in such quantities as to keep the body gently open.

Opiates are of service in this disease, even though the patient rests well. They take off spasm and irritation, and at the same time lessen the force of the circulation. Ten or twelve drops of laudanum may be taken in a cup of the patient's drink, three or four times a day.

The nitric acid is a medicine of great importance, as it is

both tonic and astringent, and it has, in several cases of diabetes, been found to succeed alone. It may be taken in the following way:—Nitric acid, one drachm and a half; barley water, nine ounces; simple syrup, one ounce.—Mix, and take two table-spoonsful in a like quantity of water, three times a day, gradually increasing the dose to four table-spoonsful. Whatever medium is resorted to, daily friction over the region of the kidneys, with camphorated liniment, should be persevered in at the same time. Blood-letting has been strongly recommended in this disease.

DISLOCATIONS.

When a bone is moved out of its place or articulation, so as to impede its proper functions, it is said to be *luxated*, or *dislocated*. As this often happens to persons in situations where no medical assistance can be obtained, by which means, limbs, and even lives, are frequently lost, we shall endeavour to point out the method of reducing the most common luxations, and those which require immediate assistance. Any person of common sense and resolution, who is present when a dislocation happens, may often be of more service to the patient than the most expert surgeon can after the swelling and inflammation have come on. When these are present, it is difficult to know the state of the joint, and dangerous to attempt a reduction; and by waiting till they are gone off, the muscles become so relaxed, and the cavity filled up, that the bone can never afterwards be retained in its place.

A recent dislocation may generally be reduced by extension alone, which must always be greater or less, according to the strength of the muscles which move the joint, the age, robustness, and other circumstances of the patient. When the bone has been out of its place for any considerable time, and a swelling or inflammation has come on, it will be necessary to bleed the patient, and, after fomenting the part, to apply soft poultices with vinegar to it for some time before the reduction is attempted.

All that is necessary after the reduction, is to apply cloths dipped in vinegar, or camphorated spirits of wine, to the part, and to keep it perfectly easy. Many bad consequences proceed from the neglect of this rule. A dislocation seldom happens without the tendons and ligaments of the joint being stretched, and sometimes torn. When these are kept easy

till they recover their strength and tone, all goes on very well; but if the injury be increased by too frequent an exertion of the parts, no wonder if they be found weak and diseased ever after.

DISLOCATION OF THE JAW.—The lower jaw may be luxated by yawning, blows, falls, chewing hard substances, or the like. It is easily known from the patient's being unable to shut his mouth, or to eat any thing, as the teeth of the under jaw do not correspond with those of the upper; besides, the chin either hangs down, or is thrown towards one side, and the patient is neither able to speak distinctly, nor to swallow without considerable difficulty.

The usual method of reducing a dislocated jaw, is to set the patient upon a low stool, so as an assistant may hold the head firm by pressing it against his breast. The operator is then to thrust his two thumbs, being first wrapped up with linen cloths that they may not slip, as far back into the patient's mouth as he can, while his fingers are applied to the jaw externally. After he has got firm hold of the jaw, he is to press it strongly downwards and backwards, by which means the elapsd heads of the jaw may be easily pushed into their former cavities.

DISLOCATION OF THE NECK.—The neck may be dislocated by falls, violent blows, or the like. In this case, if the patient receives no assistance, he soon dies, which makes people imagine the neck was broken; it is, however, for the most part, only partially dislocated, and may be reduced by almost any person who has resolution enought to attempt it. A complete dislocation of the neck is instantaneous death.

When the neck is dislocated, the patient is immediately deprived of all sense and motion; his neck swells, his countenance appears bloated, his chin lies upon his breast, and his face is generally turned towards one side.

To reduce this dislocation, the unhappy person should immediately be laid upon his back on the ground, and the operator must place himself behind him, so as to be able to lay hold of his head with both hands, while he makes a resistance by placing his knees against the patient's shoulder. In this posture he must pull the head with considerable force, gently twisting it at the same time, if the face be turned to one side, till he perceives that the joint is replaced, which

may be known from the noise which the bones generally make when going in, the patient's beginning to breathe, and the head continuing in its natural posture.

This is one of those operations which it is more easy to perform than describe. I have known instances of its being happily performed even by women, and often by men of no medical education. After the neck is reduced, the patient ought to be bled, and should be suffered to rest for some days, till the parts recover their proper tone.

DISLOCATION OF THE RIBS.—As the articulation of the ribs with the back-bone is very strong, they are not often dislocated. It does, however, sometimes happen, which is a sufficient reason for our taking notice of it. When a rib is dislocated, either upwards or downwards, in order to replace it, the patient should be laid upon his belly on a table, and the operator must endeavour to push the head of the bone into its proper place. Should this method not succeed, the arm of the disordered side may be suspended over a gate or ladder, and while the ribs are thus stretched asunder, the heads of such as are out of place may be thrust into their former situation.

Those dislocations wherein the heads of the ribs are forced inwards, are both more dangerous and the most difficult to reduce, as neither the hand nor any instrument can be applied internally to direct the luxated heads of the ribs. Almost the only thing that can be done, is to lay the patient upon his belly over a cask, or some gibbous body, and to move the fore part of the rib inward towards the back, sometimes shaking it; by this means the heads of the luxated ribs may slip into their former place.

In a modern work may be read the particulars of a case, where all the ribs are said to have been dislocated from the cartilages. The accident arose from the chest being violently compressed between the beam of a mill and the wall. In such a case, there is no means of reduction, except the effect produced by forcible inspiration; nor are there any modes of relief but bleeding, and the application of a roller round the chest.

DISLOCATION OF THE SHOULDER.—The humerus, or upper bone of the arm, may be dislocated in various directions; it happens, however, most frequently downwards, but very sel-

dom directly upwards. From the nature of its articulation, as well as from its exposure to external injuries, this bone is the most subject to dislocation of any in the body. A dislocation of the humerus may be known by a depression or cavity on the top of the shoulder, and an inability to move the arm. When the dislocation is downward or forward, the arm is elongated, and a ball or lump is perceived under the arm-pit; but when it is backward, there appears a protuberance behind the shoulder, and the arm is thrown forwards towards the breast.

The usual method of reducing dislocations of the shoulder is to seat the patient upon a low stool, and to cause an assistant to hold his body so that it may not give way to the extension, while another lays hold of the arm a little above the elbow, and gradually extends it. The operator then puts a napkin under the patient's arm, and causes it to be tied behind his own neck: by this, while a sufficient extension is made, he lifts up the head of the bone, and with his hands directs it into its proper place. There are various machines invented for facilitating this operation, but the hand of an expert surgeon is always more safe. In young and delicate patients, I have generally found it a very easy matter to reduce the shoulder, by extending the arm with one hand, and thrusting in the head of the bone with the other. In making the extension, the arm ought always to be a little bent.

DISLOCATION OF THE ELBOW.—The bones of the fore-arm may be dislocated in any direction. When this is the case, a protuberance may be observed on that side of the arm towards which the bone is pushed, from which, and the patient's inability to bend his arm, a dislocation of this joint may easily be known.

Two assistants are generally necessary for reducing a dislocation of the elbow; one of them must lay hold of the arm above, and the other below the joint, and make a pretty strong extension, while the operator returns the bones into their proper place. Afterwards the arm must be bent, and suspended for some time with a sling about the neck.

Luxations of the wrist and fingers are to be reduced in the same manner as those of the elbow, viz., by making an extension in different directions, and thrusting the head of the bone into its place.

DISLOCATION OF THE CLAVICLE, OR COLLAR-BONE.—The clavicle may be luxated at its sternal extremity, forwards, backwards, and upwards, but never downwards, on account of the situation of the cartilage of the first rib. The luxation forward is most frequent, and almost the only one ever met with.

In reducing these dislocations of the sternal end of the clavicle, a lever is to be made of the arm, by means of which the shoulder is to be brought outwards; and when thus brought outwards, it is to be pushed forwards, if the dislocation be in that direction; backward, if the dislocation be behind; and upward, if it be above. It is as difficult to keep the bone reduced, as it is easy to reduce it, so smooth and oblique are the articular surfaces. Dislocations of the capsular end of the clavicle, or that nearest the shoulder-joint, are much less common. The luxation upwards is the only one that ever occurs; and this is reduced by carrying the shoulder outwards, putting a cushion in the axilla, and applying a proper bandage, as in fractures of this bone, making the turns ascend from the elbow to the shoulder, so as to press the luxated end of the bone downward, and keep it in its due situation, at the same time that the elbow is confined close to the side, and supported in a sling, by which means the shoulder will be kept raised and inclined outwards.

DISLOCATION OF THE PATELLA, OR KNEE-PAN.—This bone may be luxated outwards, or even inwards, when violently pushed in this direction. The dislocation outwards is the most frequent.

The generality of cases of this description are easily reduced by pressure, when the extensor muscles of the leg have been completely relaxed; but owing to a lax state of the ligament of the patella, or other predisposing causes, the bone is sometimes with difficulty retained in its proper position, unless a roller be applied.

The inflammatory affection of the joint is to be opposed by topical bleeding, purging, and the use of evaporating lotions. The joint must be kept quiet a few days, and then gently moved, to prevent stiffness.

DISLOCATION OF THE THIGH.—The head of the thigh-bone may be dislocated upwards, (on the dorsum of the ilium;) upwards and forwards, (on the body of the os pubis;) down-

wards and forwards, (on the foramen ovale;) and backwards, (on the ischiatic notch.) The dislocation upward and backward, and that downward and forward, are the most frequent.

When the thigh-bone is dislocated forward and downward, the knee and foot are turned out, and the leg is longer than the other; but when it is displaced backward, it is usually pushed upwards at the same time, by which means the limb is shortened, and the foot is turned inwards.

When the thigh-bone is displaced forward and downward, the patient, in order to have it reduced, must be laid upon his back, and made fast by bandages, or held by assistants, while by others a gradual and unremitting extension is made by means of slings, or a pulley fixed about the bottom of the thigh a little above the knee; a sheet, folded longitudinally, being first placed under the perinæum or fork, and one end carried behind the patient, the other before him: they are to be fastened to one of the legs or posts of the bed, or other more secure part. While the extension is making, the operator must push the head of the bone outward, or as the circumstances of the case may require, till it gets into the socket. If the dislocation be outward, the patient must be laid upon his face, and during the extension the head of the bone must be pushed inward.

Dislocations of the *knees*, *ankles*, and *toes*, are reduced much in the same manner as those of the upper extremities, viz., by making an extension in opposite directions, while the operator replaces the bones. In many cases, however, the extension alone is sufficient, and the bone will slip into its place merely by pulling the limb with sufficient force. It is not hereby meant, that force alone is sufficient for the reduction of dislocation. Skill and address will often succeed better than force. I have known a dislocation of the thigh reduced by one man, after all the force that could be used by six had proved ineffectual.

When the force of the muscles in very robust persons resists every effort to reduce a dislocated limb, a grain or two of emetic tartar, dissolved in water, may be administered, and taking advantage of the general languor and debility that precedes the act of vomiting, the limb may be reduced with facility. I have known this plan successfully practised; to which may be added bleeding and the warm bath.

BROKEN BONES.

There is, in most country villages, some person who pretends to the art of reducing fractures. Though in general such persons are very ignorant, yet some of them are very successful; which evidently proves that a small degree of learning, with a sufficient share of common sense and a mechanical head, will enable a man to be useful in this way. We would, however, advise people never to employ such operators, when an expert and skilful surgeon can be had; but when that is impracticable, they must be employed: we shall therefore recommend the following hints to their consideration:—

When a large bone is broken, the patient's diet ought in all respects to be the same as in an inflammatory fever. He should likewise be kept quiet and cool, and his body open by emollient clysters; or, if these cannot be conveniently administered, by food that is of an opening quality; as stewed prunes, apples boiled in milk, boiled spinage, and the like. It ought, however, to be here remarked, that persons who have been accustomed to live high are not all of a sudden to be reduced to a very low diet. This might have fatal effects. There is often a necessity for indulging even bad habits in some measure, where the nature of the disease might require a different treatment.

It will generally be necessary to bleed the patient immediately after a fracture, especially if he be young, of a full habit, or has at the same time received any bruise or contusion. This operation should not only be performed soon after the accident happens, but, if the patient be very feverish, it may be repeated next day. When several of the ribs are broken, bleeding is peculiarly necessary.

The most unequivocal symptoms of fractures are, the *crepitus*, or grating noise distinguished on moving the limb, occasioned by the fractured ends; the separation and inequalities of the ends of the fracture, when the bone is superficial; the change in the form of the limb, and the shortening of it.

The treatment of fractures in general embraces three principal indications. 1. To reduce the pieces of the bones into their natural situation. 2. To secure and keep them in their place by proper bandages and splints. 3. To prevent un-

pleasant symptoms, and to relieve them, when, in spite of every effort to the contrary, they do arise.

If any of the large bones which support the body are broken, the patient must keep his bed for several weeks. It is by no means necessary, however, that he should lie all that time, as is customary, upon his back. This situation sinks the spirits, galls and frets the patient's skin, and renders him very uneasy. After the second week, he may be gently raised up, and may sit several hours, supported by a bed-chair, or the like, which will greatly relieve him. Great care, however, must be taken in raising him up and laying him down, that he make no exertions himself, otherwise the action of the muscles may pull the bone out of its place.

It is of great importance to keep the patient dry and clean while in this situation. By neglecting this, he is often so galled and excoriated, that he is forced to keep shifting places for ease. I have known a fractured thigh-bone, after it had been kept straight for above a fortnight, displaced by this means, and continue bent for life, in spite of all that could be done.

It has been customary, when a bone was broken, to keep the limb for five or six weeks continually upon the stretch. But this is a bad posture. It is both uneasy to the patient, and unfavourable to the cure. The best situation is to keep the joint a little bent. This is the posture into which every animal puts its limbs when it goes to rest, and in which fewest muscles are upon the stretch. It is easily effected, by either laying the patient upon his side, or making the bed so as to favour this position of the limb.

Bone-setters ought carefully to examine whether the bone be not shattered or broken into several pieces. In this case it will sometimes be necessary to have the limb immediately taken off, otherwise a gangrene or mortification may ensue. The horror which attends the very idea of an amputation, often occasions its being delayed in such cases till too late. I have known this principle operate so strongly, that a limb, where the bones were shattered into more than twenty pieces, was not amputated before the third day after the accident, when the gangrene had proceeded so far as to render the operation useless.

When a fracture is accompanied with a wound, it must be dressed in all respects as a wound.

All that art can do towards the cure of a broken bone, is

to lay it perfectly straight, and to keep it quite easy. All tight bandages do hurt. They had much better be omitted altogether. A great many of the bad consequences which succeed to fractured bones are owing to tight bandages. This is one of the ways in which the excess of art, or rather the abuse of it, does more mischief than would be occasioned by the want of it. Some of the most sudden cures of broken bones which were ever known, happened where no bandages were applied at all. Some method, however, must be taken to keep the member steady; but this may be done many ways, without bracing it with a tight bandage.

The best method of retention is by two or more splints made of leather or whalebone. These, if moistened before they are applied, soon assume the shape of the included member, and are sufficient, by the assistance of a very slight bandage, for all the purposes of retention. The bandage which we would recommend is that made with twelve or eighteen tails. It is much easier applied and taken off than rollers, and answers all the purposes of retention equally well. The splints should always be as long as the limb, with holes cut for the ancles when the fracture is in the leg.

In fractures of the ribs, where a bandage cannot be properly used, an adhesive plaster may be applied over the part. The patient in this case ought to be bled, to keep himself quite easy, avoiding every thing that may occasion sneezing, laughing, coughing, or the like. He ought to keep his body in a straight posture, and should take care that his stomach be constantly distended, by taking frequently some light food, and drinking freely of weak, watery liquors.

When the ribs are fractured on both sides, bandages are not admissible, as the patient would be in extreme danger of being suffocated, from impeded action of the chest.

The most proper external application for a fracture is lead water, or a mixture of vinegar and water, to which some spirits of wine may be added. The bandages should be wet with this at every dressing, if the inflammation runs high.

BURNS AND SCALDS.

In all large burns or scalds, unattended with collapse, the first question is, has the cuticle or skin been extensively broken? If not, then let the part be instantly enveloped in carded cotton, which should be kept at hand in every family,

for cases of accident. If there be a delay of more than half an hour, it will prove decidedly injurious. When the article cannot be procured in time, let the parts be well oiled, and put in cold water. When the situation of the burn precludes the use of this remedy, it should be dressed with the ointment of lime water and sweet oil. In burns or scalds with extensive rupture of the skin, we cannot with any propriety apply the cotton in the first instance; but after a complete oiling of the parts, if the time elapsed after the accident be not too considerable, it may be employed to much advantage. The benefit derived from the cotton appears to be limited to about a day; it may then be removed carefully, and a dressing applied, consisting of patent lint, linen, or muslin, well coated with lime water and sweet oil. These ingredients may be mixed in equal parts; by shaking them well together in a wide mouth vial, they form a kind of white paste, very soft, and very agreeable in its effects. This dressing should be renewed two or three times a day, until a new skin begins to form. If the burn be deep and severe, so as to harden and render crisp any part of the skin, this must mortify and slough away. In such cases, it is best to omit the ointment in about forty-eight hours, and then to use poultices until the sloughs separate; after which the case may be treated as an ulcer. Spirits of turpentine and oil are very good applications, also chalk and lard have been successfully applied.

Give opium and wine as long as the chilly state continues, but as soon as the heat is developed, and the pulse has recovered its powers, do not continue it any longer.

MORTIFICATION.

When any part of the body loses all motion, sensibility, and natural heat, and becomes of a brown, livid, or black colour, it is said to be affected with *sphacelus*, that is, complete mortification. As long as any sensibility, motion, and warmth continue, the state of the disorder is termed *gangrene*.

Mortification is the sequel of diseases both of excitement and of debility. In inflammations of the external parts, which terminate in mortification, the process observed is as follows: the pain ceases, the purulent matter becomes acrid and sanious; air-bubbles are set at liberty, collecting in small vesications under the skin, or distending the whole organ by an emphysematous swelling. The blood is coagulated in the

vessels of the gangrened part, and the circulation cannot be restored. A slight delirium comes on, followed either by dejection of spirits or calmness of mind; but in each case attended with a peculiarly wild expression of countenance; though sometimes with a very peculiar expression of serenity, with a blackness under the eyes. The pulse is usually quick, low, and often intermitting. In the earliest stages, deep incisions are attended with a discharge of blood, still florid, but the skin, the muscles, and the cellular membrane, soon melt down into a brownish offensive mass. We conclude that similar processes take place in the internal parts when they become mortified. When this occurs in strangulated hernia, or in inflammation of the bowels, a remission of the violent pain takes place, and the patient and his friends are deluded with the hope of complete relief; but the experienced physician knows the treacherous symptom, and must not deceive them with false hopes. There is a peculiar kind of mortification called *dry gangrene*, where the disease begins in one of the toes, and very often after a person has been paring a corn or toe-nail. It sometimes stops spontaneously, and deprives the patient of some of his toes, or even of his foot and leg, as cleanly as if it had been amputated by a surgical operation: at other times it has been successfully treated by giving large doses of opium.

The causes of mortification are general or local. Those which affect the general system are the violent inflammatory fevers, or the jail and hospital fever; as also scurvy and dropsy, long continued or intense cold, and some internal changes, which we cannot trace or explain. The local causes of mortification are numerous. Some of them are, burns, excessive cold, the application of caustics, the strangulation of a part, as in hernia, or the tying of tumors; severe contusions, as gun-shot wounds, bad fractures, violent inflammation, urine effused in the cellular substance, pressure on large blood-vessels, by a ligature or by tumors, wounds of large vessels. Long continuance in one posture, as when a person is confined to bed, gives occasion to gangrene of the parts where the bones have least flesh upon them, and which are therefore much exposed to pressure; as the shoulder-blades, the haunch-bones, and the lower part of the spine. The hospital gangrene is produced by some indescribable state of the air in hospitals, jails, and ships. During its prevalence the smallest scratch or ulcer is apt to turn to a fatal

gangrene. In dropsy, which occurs in broken down and debilitated constitutions, if a few punctures be made to let out the effused fluid, these are too apt to run into gangrene, and a prudent surgeon will therefore not risk the experiment; although it is not unusual for spontaneous vesications to form and break on such dropsical limbs, and to go on to gangrene. The local mortifications which happen in old people, are generally owing to ossification of the arteries.

Internal mortifications are generally beyond the reach of medicine; but as very threatening symptoms have sometimes disappeared, we must attempt all that art can suggest.

When inflammation is so violent and strong as to give reason to fear that it will end in mortification, it is a call for us to use with great diligence bleeding, purging, low diet, cold applications, and the other means for abating it; taking care that we do not continue them too long, lest we add to the debility and exhaustion which are to follow.

When the mortification has fairly begun, our remedies must be very different from those which counteract inflammation. We are now to prevent debility by giving a nourishing diet and tonics. Of the class of tonics, the most efficacious is the bark; and in a great variety of cases, the good effects of the Peruvian bark are very remarkable. Small quantities of opium and calomel combined, may be given at frequent intervals. When the weakness is very great, the use of wine may occasionally be required, as also ammonia and other diffusible stimulants. We must be careful not to give these remedies when there is any strength of pulse and inflammatory symptoms remaining. When our remedies are successful, and the mortification is about to cease, a separation takes place at the verge of the sound part, by means of a slight degree of inflammation. But, on the contrary, it very often happens that the disease spreads, and death ensues.

Local Applications.—Some have advised cold lotions near the verge of the mortified part, to check the further progress of inflammation; but fomentions and emollient poultices are commonly preferred. To the common poultices, in some cases, are added powdered charcoal, or yeast, to correct the fetor, and to counteract putrefaction. Stale beer grounds, or port wine, with linseed meal, make a good poultice. Stimulating balsams, hot oils, and the actual cautery, are now disused in the dressing of mortified parts. It is necessary to

give vent to putrid matter, and for this purpose pretty deep incisions are required. With a view of allowing dressings to reach the sound part, and to excite inflammation, which commonly takes place at the verge of the mortified part when it terminates favourably, and separates from the sound, scarifications have been recommended; but they are always attended with risk of increased inflammation, and we never can be sure how much the disease extends below the surface. We may, therefore, be cutting a superficial part, while the evil is extending close to the bone.

When a part is frost-bitten, it is a very dangerous practice to bring it suddenly into a higher temperature; and in winter campaigns of armies, it has been found, that soldiers who have been exposed to intense cold, have not complained of being frost-bitten till a thaw came on. The proper treatment is by frictions with camphorated spirits of wine.

MEASLES.

An eruptive disease arising from contagion, attended with catarrhal and pneumonic symptoms, from which few individuals of the human race are exempt, but which attacks them only once in the course of their life. As it is generally children who are affected with measles, and as it is a disease accompanied with very dangerous symptoms in many cases, we shall, therefore, give a pretty full description of its symptoms and treatment.

When the contagion of measles has been received into the body, the patient, for some time, feels indisposed at intervals, and then appears well again. At last, a shivering and coldness come on, soon followed by increased heat, thirst, and other feverish symptoms, with sickness, loss of appetite, vomiting, and in some rare cases, with convulsion fits; but these are far less common than in the commencement of small-pox. Sometimes the fever is sharp and violent from the first; sometimes it is more obscure and mild, but it generally is very violent before the measles show themselves on the skin, which generally happens on the fourth day from the attack of shivering or cold stage of the fever. From the very commencement, there are all the symptoms of catarrh, hoarseness, a very frequent rough cough, difficulty of breathing, swelling and redness of the eyes and eyelids, and a running of sharp, acrid matter from the eyes and nose. With

all this, there is often severe headache, throbbing of the temples, and great drowsiness. The eruption generally appears on the fourth day, first about the face and under the chin, and then on other parts of the body. It first appears in small red points, but a number of these come together, and form themselves into semi-circular patches, in the intervals of which the skin is not very much different from its natural appearance. It is by this that the eruption is distinguished from that of scarlet fever, where the skin is uniformly of a bright red colour. The eruption is very slightly prominent, and appears a little rough to the touch. The eruption continues pretty bright for two days, but about the third it fades a little, and becomes of a brownish hue; and in a short time, about two days more, it totally disappears, and a powdery scaling off of the outer skin takes place. A looseness of the bowels occasionally comes on when the eruption is subsiding. The fever is sometimes of alarming violence, and it does not, in general, subside when the eruption comes out; on the contrary, its violence is occasionally increased till after the fading of the eruption. Whether the fever subsides or not, the cough commonly continues with great severity for a considerable time; and the difficulty of breathing increases, and is accompanied with pain and other symptoms, marking a degree of inflammation of the chest. This tendency to inflammation of the chest and disorder of the lungs, is what renders the measles so troublesome and dangerous a disease; and in too many cases brings on a protracted illness, or causes sudden death, when the disease appears to be going entirely off.

The danger in measles is owing to the tendency they have to end in acute catarrh, or inflammation of the lungs; but in some rare epidemics, they have been known to assume a putrid or malignant form. The time when measles generally make their appearance as an epidemic, is about the month of January, and they continue till some time in May; though, from particular circumstances, there may be cases at any time; and, from the numbers that generally take them in one epidemic, the measles are not very prevalent each successive year, but intermit for a year or two, till a new succession of subjects for the disease comes into existence.

It is a matter of high importance to regulate the temperature in which patients should be kept during measles. Happily the absurd and destructive practice of loading the patient

with bed clothes, and heating his system by hot rooms and large fires, and by giving strong aromatics and stimulants, is now almost universally exploded; and in no class of diseases has a return to a better plan been more beneficial, than in eruptive diseases. The safe and rational plan is to keep the patient in measles in an *equal moderate temperature*, avoiding all unnecessary, artificial, and external heat, and taking care that the patient, on the other hand, be not exposed to cold. In the early stages of measles, the fever is sometimes of the most alarming appearance, and requires the abstraction of blood from the arm; but in general, the symptoms are light, and it is not necessary to do any thing more than to supply the patient plentifully with mild, diluent drinks, to administer a gentle laxative, and to sponge the head and temples with tepid vinegar and water; or if the eyes be much affected, to apply tepid milk and water to them. If the oppression and difficulty of breathing be great, before the eruption comes out, it is of great service to put the patient into the warm bath, and to repeat this once or twice, if the urgency of the symptoms continues; in general, this helps out the eruption, and relieves the patient.

Some physicians of great ability recommend an emetic as always useful at the commencement of the disease, and the practice is worthy of attention. After it has operated, a purgative medicine may be given and repeated, so as to preserve the bowels in a lax state: as Epsom salts, one ounce; tartar emetic, two grains; water, eight ounces; dose, a tablespoonful every two hours. The diluting drinks recommended in inflammatory diseases—such as barley water, tamarind tea, and the like—should be taken freely; and all animal food and stimulating liquors must be avoided.

But when the symptoms are severe, and there is a good deal of pain the chest, with difficulty of breathing, blood-letting must be resorted to; as, in addition to the object to be fulfilled in mild cases, we have here to prevent or remove inflammation in the chest. It is seldom, however, that these symptoms come on till the eruption is going off, and the abstraction of blood should never be resorted to early in the disease, unless it be clearly necessary. Under the circumstances just stated, of great difficulty of breathing, and an unusually hard pulse, from six to eight ounces of blood should be taken from the arm; and if these symptoms continue little or not at all relieved by the first evacuation, the operation

should be repeated to the same extent. The application of leeches to the chest is often advisable, in addition to the general bleeding. After the loss of blood, a blister should be applied over the chest; the purgative solution with diluting drinks, and a low diet, being resorted to, as just advised. In the severer forms, the diet, of course, must be very spare and low, and the purgative medicine may be administered a little more freely than is necessary under the milder attacks.

With regard to exercise, if the patient find himself inclined, from the commencement, to remain in bed, he should not be prevented; at the same time, there is no occasion to confine him to it against his inclination. In all cases, towards the period of the eruption, he feels fatigued, and averse to motion. Whether he be in bed or not, extremes of heat and cold are equally to be avoided. If cough be troublesome, it will be useful to breathe the steam of warm water, not through an inhaler, but over a large basin, with the head covered with a flannel large enough to hang over its edges; by this means the inflamed eyes will also have the benefit of the relaxing vapour.

If the oppression of the chest, pain, and hard pulse, should return, as they are apt to do on the disappearance of the eruption, blood-letting or cupping must again be had recourse to, however freely they may have been employed before.

Opium should never be given to relieve the cough, as it generally fails in effecting this object, and always increases the fever and restlessness. One of the best medicines for this purpose, after the use of the lancet has been carried to a proper extent, is the following:—Extract of hemlock, extract of henbane, of each, half a drachm; ipecacuanha, in powder, twelve grains.—Mix, and divide into twelve pills; one to be taken three times a day. From half a pill to a pill may be given to children above a year old, and below ten years.

In measles a spontaneous looseness proves the most favourable crisis. When moderate, it should not be interfered with, and even when it appears excessive, only the mildest astringents should be given in small doses, so as to lessen, but not altogether to remove it.

In case the measles should suddenly disappear, endeavours should be immediately resorted to in order to restore the eruption to the skin. The patient must be placed in a warm bath, blisters be applied to the inside of the thighs or legs,

and to the chest, and a little warm lemonade be given frequently, with ten drops of antimonial wine every hour, which may be taken either by itself, or in warm balm tea.

Some of the most troublesome consequences of measles are, a hoarseness, cough, shortness of the breath, and inflammation of the eyes. The hoarseness is often best removed by astringent gargles, when there is no fever nor difficulty of breathing. For the cough, we would recommend the pills above prescribed. A gentle purgative frequently relieves the shortness and difficulty of breathing; and, if that fail, a blister to the breast, frequently repeated, or the tartar emetic lotion, rubbed freely into the same part, are the best means. To moderate and remove the inflamed state of the eyes, exposure to the light should be avoided, and the eyes be frequently washed with a lotion, composed of ten grains of sugar of lead, one ounce of water, and half an ounce of rose water. After the inflammation has been subdued by means of quietude, low diet, and exclusion from the light, and the complaint assumes an indolent character, one of the most efficacious remedies is the diluted ointment of nitrated quicksilver, or citrine ointment.

It is, however, to be remarked, that blood-letting sometimes removes, most promptly, the symptoms remaining after measles. Thus it will remove cough, although unaccompanied by fever, or the other symptoms denoting inflammation. It may, therefore, be tried to a small extent, when the previous means fail to remove the cough, difficulty of breathing, and other symptoms above mentioned.

It will be necessary cautiously to avoid exposure to cold, for some time after the patient has recovered.

HOOPING-COUGH.

Hooping-cough or pertussis, is most commonly a disease of childhood; adults, however, are by no means exempt from it. It seldom attacks the same individual more than once. It usually commences with a dry cough, hoarseness, slight fever, and the other symptoms of ordinary catarrh, with which the disease is generally confounded in its forming stage. The cough becomes by degrees more harsh, and assumes the peculiar sound and paroxysmal character by which hooping-cough is characterized. The above symptoms may continue several days, before the cough acquires the hooping sound.

Its peculiar characteristics, after the disease is fully formed, consist in the act of expiration being repeatedly interrupted at short intervals, each interruption being succeeded by a long effort at inspiration, accompanied with a sharp, hissing or wheezing sound. The fit of coughing continues in the same manner, until at length a copious expectoration of glairy mucus, or vomiting takes place, by which the fit is terminated. The fits of coughing occur irregularly, and are often numerous throughout the day and night. The violence of the disease is proportionate to the duration and intensity of the paroxysm, previously to expectoration or vomiting taking place. Sometimes the fit does not continue but a few minutes, while at others it endures a much longer period. The patient is made aware of the approach of a paroxysm of coughing, by a slight irritation felt in the throat, in consequence of which he throws himself upon his knees, seizes hold on some object near him, or desires his head to be held fast by his parents or nurse. The paroxysms follow each other more frequently, and are more severe during the night than in the day. The ordinary interval between them varies in almost every case; every sudden emotion or rapid movement of the body; a fit of crying or anger; the inhalation of irritating substances, &c., are so many causes capable of exciting a paroxysm. When the paroxysm of coughing commences, the patient is affected with great anxiety; the face swells, and becomes flushed; the eyes protrude and are filled with tears; and if the disease be violent, the face becomes of a dark red or purple hue; the eyelids swell; the eyes appear starting from their sockets; the neck is tumid, and at every accession of the cough the child appears to be threatened with apoplexy, suffocation or strangulation. The general health of children labouring under this disease is seldom much impaired, and the little patient will rise from his knees, upon which he had thrown himself at the commencement of the fit, and return with unimpaired spirits to his play. After a violent fit, also, has terminated by vomiting, he will call for food, and eat greedily and voraciously. In the intervals of the paroxysms, indeed, we would scarcely suspect that he was labouring under disease. After hooping-cough has continued some time, it is attended with expectoration, frequently tinged with blood, which infants often swallow, and which even those who are older do not readily discharge. The disease is not always accompanied with fever, excepting

in its early stages; when present, the fever resembles that which accompanies catarrhal complaints, and has a paroxysm every evening. Hooping-cough is a disease of uncertain continuance; after an indefinite time, the symptoms gradually abate, until at length nothing remains excepting a harassing and frequent cough, unaccompanied, however, with the peculiar marks by which it was characterized in the height of the disease. This ordinarily ceases after a few days, and the patient returns very quickly to a state of health. In some cases, however, it is kept up apparently by the force of habit, and continues for months, or even longer.

The hooping-cough, under ordinary circumstances, is rather a troublesome than a dangerous disease. It is, however, dangerous in proportion to its violence and duration; to the weakness of the constitution of those it attacks; it is also a much more serious disease in young infants than during childhood or adult age. In warm climates or in warm seasons of the year, it attacks with less violence and is of shorter duration, than under opposite circumstances.

In infants, particularly those of a delicate or unhealthy constitution, it is apt to produce convulsions, suffocation, apoplexy, inflammation or dropsy of the brain, or ruptures; a moist skin, warm extremities, open bowels, and free vomiting, are favourable symptoms. When hooping-cough is very violent or long continued, it is apt, in the predisposed, to produce a diseased condition of the lungs, attended with hectic fever, and other symptoms of consumption; or a state of extreme emaciation may be induced, finally terminating in death. When the paroxysms are violent, it is said that death may be produced by the rupture of a blood vessel in the brain, or by suffocation; we believe, however, this to be a rare occurrence.

With respect to the treatment of hooping-cough, this differs considerably, according to the violence and nature of the symptoms, and the stage of the disease. In the very commencement, the remedies are the same as in the forming stage of catarrh; and we have reason to believe, that at its very onset, by an emetic, followed by a warm bath, and an opiate combined with some diaphoretic, adapted to the age of the patient, we should in most instances be enabled greatly to diminish the violence and curtail the duration of its subsequent symptoms. When the disease is fully formed, if the patient be of a robust or full habit; if there be much difficulty

of breathing, or if the other symptoms of the paroxysm be of considerable violence, particularly if there be fever, and an evident determination to the head, bleeding from the arm, or locally from the head and chest, by cups or leeches, will be demanded; and a quantity of blood should be thus drawn off, graduated by the urgency of the symptoms, and the age and strength of the patient; although, in every case of whooping-cough, bleeding will not be demanded; yet, under circumstances similar to those we have enumerated, its neglect would be attended with serious consequences.

Emetics are the remedy from which the most advantage will be derived in this disease. To do good, however, the operation of the emetic should be frequently repeated; at least once in the twenty-four hours during the first stages of the disease, or as long as the paroxysms recur with violence. In cases attended, however, by the symptoms indicating blood-letting, the use of the emetic should be preceded by the lancet, cups or leeches, according as circumstances may require. During the intervals of vomiting, the exhibition of nauseating doses, either of tartar emetic or ipecacuanha, will generally produce decided relief. Subsequent to the operation of the emetic, Dr. Pearson has recommended a combination of opium, ipecacuanha, and carbonate of soda, according to the following formula: tincture of opium, one drop; wine of ipecacuanha, five drops; carbonate of soda, three grains; water, one drachm; which is the dose for a child a year old, to be repeated every three hours.

Blisters to the chest or to the back, between the shoulders, are in many cases productive of the best effects. There are few cases marked with any degree of violence in which they should not be applied; but in milder cases, a warm plaster, or embrocations to the spine, with some stimulating liniment, may in general supersede the use of blisters. The most common stimulants employed for this purpose are garlic, camphor, ammonia, and the spirits of turpentine and oil of amber. As the local stimulating effects of the remedies are those from which the benefit is to be derived, any of the class may be made use of.

The bowels in whooping-cough are to be kept freely open during the whole continuance of the disease, though we are not convinced that any advantage will be derived from active purging. The castor oil, senna tea, or in older children, calomel, followed by castor oil, will in most cases fully answer

our purpose. These articles are to be repeated as occasion may require.

After the disease has passed through its first stages, and appears to consist almost entirely in a spasmodic affection of the respiratory organs, unattended with inflammation or febrile excitement, the treatment consists almost entirely in the exhibition of antispasmodics, narcotics and tonics, certain articles of each of which classes have been supposed more particularly adapted to the disease before us.

The best article at the stage referred to, is, perhaps, a watery solution of assafoetida; when properly timed, it will seldom be found to fail in very speedily removing the cough and other remaining symptoms. The only difficulty is that some children cannot be prevailed on to take it, in consequence of its nauseating smell and taste. The dose must of course be adapted to the age of the patient.

Besides the above, various other remedies have been proposed; we believe, however, that the above are those upon which our dependence should be chiefly placed.

The diet in whooping-cough should be light, easy of digestion, and moderate in quantity. The patient should breathe a pure air, and be carefully guarded, by appropriate clothing, against cold and damp. In the chronic form of the disease, warm bathing, change of air, and regular gentle exercise, will be found of great advantage.

CROUP.

Croup is principally, though not solely, an affection of the throat; a quantity of lymph being thrown out upon the inner or mucous membrane of this passage, which hardening, forms a false membrane, and rendering the passage narrow, obstructs the breathing. Croup is most frequent in children from the first to the fourth year; and plump, fat subjects are more likely to be affected than those of spare habit. The disease occurs at all seasons, but especially at times when changes of weather are frequent. A decisive symptom is the shrill sound produced by the passage of the air through the windpipe, which once heard, can never be mistaken: it is observed in a few hours after the first embarrassment in breathing is perceived. If this sign be absent, the case can hardly be regarded as croup, though the term is often misapplied. Other marks of the disease are a hoarse, sonorous

breathing, and a husky cough, sometimes wholly dry; but at others, attended with expectoration of a purulent matter, in which may be detected fragments of the membranous formation above named. The voice is sometimes, but not always, altered. On examining the throat it will be found of a deep red colour, and in the struggles of the child a large quantity of pus will often be thrown up on the tongue. The disease, whether it terminates favourably or otherwise, is of short duration; often only a few hours elapsing before relief is obtained, or death terminates the case.

In the most dangerous stage or degree of the disease, there is often to be remarked a mottled complexion, or a circumscribed flush in the cheeks. The pulse is small and quick; the eyes prominent and blood-shot; the pupils dilated; violent tossing, with difficulty of breathing. The immediate cause of death is either actual suffocation or the exhaustion incident to the rapid breathing, the laborious action of the heart, and the imperfect supply of air. Frequently, some hours before a fatal termination, the little sufferer falls into a state of torpidity, and death is met with surprising tranquillity.

Treatment.—In treating croup, the remedies principally relied on are, bleeding, emetics, and calomel. Bleeding is employed early, not only with the view of relieving inflammation, but likewise to diminish the engorgement of the lungs. Emetics, also, apart from their general effect, tend powerfully to produce a dislodgement of the secretion within the throat. Calomel has enjoyed a large share of confidence in croup. Let the little patient be bled very freely at the commencement of the case. Then give to a child of three years old or upwards, a teaspoonful of antimonial wine, and repeat it, if necessary, in half an hour. If the second dose do not cause vomiting, double its quantity, unless the case be very mild.

Vomiting must be induced. If it appear not in three hours, the warm bath must be employed to promote it. The vomiting should be encouraged by warm drinks; and the nausea should be continued for a few hours by giving a few drops of antimonial wine occasionally. The dose for a child of eighteen months old, half a teaspoonful; and for younger children, in proportion. All exposures should be most carefully avoided for several days. When the symptoms seem to linger long after the emetic, a blister to the throat will

often give great relief. The hive syrup, known as Cox's hive syrup, is a very good and safe emetic for young children. A single dose of three or four grains of calomel at the commencement is both safe and advisable.

The croup of adults, though resembling in many respects that above described, is of much rarer occurrence, and shows itself principally in those advanced in life, and of decayed or broken constitutions. It usually involves the epiglottis, and the other parts concerned in forming the voice. There is more or less soreness of the throat at the very commencement of the attack, accompanied with heat, and difficulty in swallowing, but with little or no cough. The inflamed tonsils and pharynx soon become covered with lymph, and then pain begins to be experienced in the larynx, and change of voice occurs, but seldom with those violent paroxysms which mark croup in children. The expectoration, therefore, is seldom mixed with any solid matter, but consists principally of mucus or phlegm, and sometimes of pus. The disease is commonly fatal under any mode of treatment. It was probably this disease that terminated the career of Washington.

The following prescription for children one year old, I have generally found to give relief in a short time.

Take Calomel,	-	-	-	-	-	4 grains.
" Tartar emetic,	-	-	-	-	-	$\frac{1}{2}$ grain.
In molasses or jelly.						

Then rub its throat and breast with liniment made of spirits of camphor, spirits of hartshorn, and goose grease or sweet oil, equal parts. Half a teaspoonful of antimonial wine is also to be given. The warm bath is good.

MUMPS.

The mumps is a swelling of the glands about the throat, which is occasionally observed to be epidemic in certain districts of this country. This disease generally makes its appearance in spring, and young persons of both sexes are much more liable to be attacked by it than those farther advanced in life. It is preceded by heaviness, lassitude, and a general sensation of uneasiness, which continue for several days. Stiffness, pain, and difficulty of motion, is then perceived about the articulation of the lower jaw. A swelling of the glands situated under the jaws, and diffused over the neck, next takes place, which sometimes increases to so enormous a magnitude as greatly to disfigure the countenance. There is a good deal of fever, as indicated by the increased

frequency of the pulse. About the fourth day from the commencement of the tumefaction, the disease is at the height. A gentle moisture then begins to exude from the surface of the swelling, accompanied with a general perspiration of the whole body, which, if it be encouraged by keeping warm in bed, and drinking diluent fluids, appears to form the natural crisis of the disease, and the whole terminates favourably about the sixth day.

But if, from exposure to cold, or improper management, this natural process of the disease be interrupted, a singular translation of the morbid action takes place. The tumors about the throat suddenly subside, and are followed by swellings of the testicles in the male sex, and of the breasts in the female, accompanied with a fresh exacerbation of the fever. If the swellings of these parts be imprudently checked by exposure to cold, or if they suddenly subside, the brain is apt to become affected, occasioning convulsions, delirium, and other dreadful symptoms, which finally terminate in death.

In the treatment of this disease, evacuations of all kinds are not only improper, but dangerous. If the bowels are much constipated, they may occasionally be relieved by a clyster; but active purgatives, and blood-letting, must on no account be employed. The patient ought to keep warm in bed, and encourage perspiration, by drinking plentifully of diluting liquors: such as mint whey, or balm tea, with a few drops of spirits of hartshorn. The effort of nature to resolve the tumors by exudation, should be promoted by covering the parts with soft flannel. If the swellings show a disposition to subside too early, they should be covered with blistering plasters, or rubbed with the volatile liniment.

Should the tumor, when seated in the testicles, suddenly subside, and any tendency to delirium manifest itself, the whole scrotum ought, without delay, to be enveloped in a blistering cataplasm, which is made by sprinkling a little of the powder of Spanish flies over the surface of the common poultice. By this means the disease may be arrested in the part occupied by it, and the dangerous consequences of its falling on the brain prevented.

It is not an uncommon sequel of this complaint, to find sometimes one and sometimes both testicles, after the inflammation has ceased, gradually shrink in size, and finally wither wholly away.

WORMS.

There are several kinds of worms which infest the intestinal canal of man, but the chief are the *ascarides*, or small white thread worms, mostly found in the rectum, or last gut; the *lumbrici*, or long round worms, usually found in the small intestines; and the *tænia*, or tape-worm, which occupies the upper part of the intestinal tube, and is occasionally found in every part of it.

Worms can hardly exist in so sensible and highly organized a part as the intestines, without producing some degree of irritation there; and we are certain that irritation cannot take place in that canal without producing, sooner or later, and in a greater or less degree, disagreeable effects in various parts of the system, and especially in the stomach and head. Hence these animals frequently occasion a variable appetite, which is sometimes deficient, at other times voracious; pains in the stomach; fetid breath; nausea; headache; vertigo and giddiness; cough; irritation about the nose and anus; disturbed sleep; and a disordered state of the bowels. In children, hardness and fulness of the belly frequently occur, with frequent slimy stools, and sometimes convulsion fits. In adults, as well as in children, worms not unfrequently give rise to severe epileptic fits, and sometimes occasion great emaciation.

Worms most frequently appear in persons of a relaxed habit, especially in those whose digestive organs are disordered. An excessive use of vegetable food, of fruits, of sugar, or any other saccharine substance, very strongly favours their generation. The reason why children are more infested with them than adults, appears to be chiefly because they are allowed to indulge to excess in eating sweet things, to the partial or total neglect of salt.

Simple irritation of the stomach and bowels will often produce all the symptoms above described, and, in some cases, it is difficult to ascertain whether worms do or do not exist in the bowels, when none have ever been discharged. In such instances, we can determine the real nature of the case only by an attentive consideration of all the symptoms, and the patient's habits, more particularly with respect to the use of food.

The fundamental principle in the treatment of worms is, to restore health to the system generally, and the stomach

and intestines in particular, and thus not only to dislodge the worms, but to render them incapable of reproduction. On this principle, it will be found, almost invariably, that those medicines and plans of treatment are the most eligible, which tend directly to invigorate the whole constitution, at the same time that they expel the worms.

A great deal has, at different times, been said about the efficacy of certain medicines in the cure of worms, but many of these are unnecessary, or even injurious. There are few cases which will resist the proper use of salt, more especially if the usual means of invigorating a weakly constitution be resorted to, and rich food, flatulent and crude vegetables, and saccharine substances, be avoided as much as possible. Salt is a natural and necessary stimulant to the digestive organs; it excites them to a healthy and vigorous action, and is particularly obnoxious to all kinds of worms. Persons troubled with these animals should, therefore, increase their quantity of salt at each meal; lessen that of every kind of sweet food; avoid partaking much of vegetables; regulate the bowels by the occasional employment of a purgative: as castor oil, magnesia and rhubarb, or a pill of three grains of soap, two of aloes, and one of gamboge, and avail themselves of the usual means of strengthening the general habit, by having recourse to active exercise daily, early rising, the use of the tepid bath, frictions of the skin, &c. These measures are highly advisable and useful, whatever kind of medicine be employed. At the same time, a dose of salt and water—for example, an ounce or two of common salt, dissolved in nearly half a pint of water, should be taken in the morning, fasting, and repeated at the end of three or four days. This will generally act as a purgative, and will certainly bring away almost every kind of worm. If necessary, the repetition may be extended to a third or fourth time, and in very severe cases, the quantity of salt used at each dose may be increased to three or four ounces.

This plan is applicable to the cases of children, as well as to those of adults. As a purging potion for young children, half an ounce of salt, dissolved in a quarter of a pint of water, will usually be sufficient.

For tape-worm, the oil of turpentine is an effectual remedy. An ounce may be given to an adult, or half an ounce to a child, and may be repeated the second or third time in the course of a fortnight. It may be swallowed simply suspended

in water. It is seldom advisable to repeat it more than three times, unless under the direction of a medical practitioner.

In the small white thread worm, so often infesting the last gut in children, half a pint or a pint of lime water should be injected once a day, and calomel and jalap, or a dose of castor oil, be given once a week, for three or four weeks. Or, instead of the lime water, a strong decoction of wormseed, or a solution of salt and water, may be injected after the same manner. This plan is generally successful.

The bristly down of the pods of cowhage is also a powerful remedy for worms.

A great number of other medicines have been recommended: as pink root, tin filings, male fern, tansey, rue. Several of them are very useful; but the preceding remedies are the most powerful and the best, and will very rarely fail in affording satisfactory relief.

Worm lozenges, and other patent medicines sold for the cure of worms, are composed chiefly of calomel, or some other active purgative. They are, no doubt, sometimes beneficial, but the foregoing measures are by far more eligible, and those who adopt them will find no need of resorting to any secret preparation.

EAR-ACHE.

This disorder chiefly affects the membrane which lines the inner cavity of the ear, called the *meatus auditorius*. It is often so violent as to occasion great restlessness, anxiety, and even delirium. Sometimes epileptic fits, and other convulsive disorders, have been brought on by extreme pain in the ear.

The ear-ache may proceed from any of the causes which produce inflammation. It often proceeds from a sudden suppression of the perspiration, or from the head being exposed to cold when covered with sweat. It may also be occasioned by worms or other insects getting into the ear, or being bred there; or from any hard body sticking in the ear. Sometimes it proceeds from the translation of morbid matter to the ear. This often happens in the decline of malignant fevers, and occasions deafness, which is generally reckoned a favourable symptom.

When the ear-ache proceeds from insects, or any hard body sticking in the ear, every method must be taken to re-

move them as soon as possible. The membranes may be relaxed by dropping into the ear oil of sweet almonds, or olive oil. Afterwards the patient should be made to sneeze, by taking snuff, or some strong sternutatory. If this should not force out the body, it must be extracted by art. I have seen insects, which had got into the ear, come out of their own accord upon pouring in oil.

When the pain of the ear proceeds from inflammation, it must be treated like other topical inflammations, by a cooling regimen, and opening medicines. Bleeding at the beginning, either in the arm or jugular vein, or cupping in the neck, will be proper. The ear may likewise be fomented with steams of warm water; or flannel bags filled with boiled camomile flowers, may be applied to it warm; or bladders filled with warm milk and water. An exceedingly good method of fomenting the ear is to apply it close to the mouth of a jug filled with warm water, or a strong decoction of camomile flowers.

The patient's feet should be frequently bathed in lukewarm water, and he ought to take small doses of nitre and rhubarb, viz., a scruple of the former, and ten grains of the latter, three times a day. His drink may be a decoction of barley and liquorice, with figs or raisins. The parts behind the ear ought frequently to be rubbed with camphorated oil, or a little of the volatile liniment, and a few drops of the camphorated spirits of wine may be put into the ear with wool or cotton. A blister behind the ear, applied early, will sometimes remove the complaint.

When the inflammation cannot be discussed, a poultice of bread and milk, or roasted onions, may be applied to the ear, and frequently renewed, till the abscess breaks, or can be opened. Afterwards the humours may be diverted from the part by gentle laxatives, blisters, or issues; but the discharge must not be suddenly dried up by any external application.

Ear-ache sometimes continues for some time without any apparent inflammation, and is then frequently removed by filling the ear with cotton or wool, moistened with tincture of opium or ether, or even with warm oil or water. Pain in the ear is also sometimes the consequence of a diseased tooth, in which case the ether should be applied to the cheek over the suspected tooth, or a grain of opium with a little camphor, or half a grain of the extract of belladonna may be applied to the tooth itself.

FLUOR ALBUS, OR WHITES.

Some women are subject to a discharge of a fluid, usually light coloured, but occasionally green or yellow; sometimes it is thin, at others, thick and adhesive. The quantity varies in different persons, and at different times in the same person. In some individuals it gives no uneasiness, while in others it occasions much constitutional disturbance, breaking down the health of the strongest female by slow degrees.

This discharge is a symptom in various affections of the uterus and vagina. Great mental emotions, severe labours, chronic inflammation, or organic disease of the vagina, or uterus; a displacement of the latter organ, or unsuitable instruments introduced into the vagina, to support it, often produce irritation and discharge. To relieve this complaint, when there is no organic disease of the uterus, let the patient pay strict attention to the cleanliness of her person in general, and of the parts whence the fluid escapes. If she have pain in the back, quick pulse, and headache, with fever, let her lose a few ounces of blood from the arm; let her bowels be purged with Epsom salts or magnesia, alone, or with rhubarb. Keep her quiet for several days, in a horizontal position, till the pain in the head and back, and the fever, are relieved; after this, she may use a solution of a drachm of alum, in six ounces of water, cold or warm, at option, or half a drachm of sulphate of zinc, dissolved in six ounces of rose water; a part of this to be thrown into the vagina, by a proper female syringe, two or three times a day. A tea made of the black oak bark, or a weak infusion of nut-galls, sometimes answers a very good purpose as an injection, as also does lead water. All the vegetable injections, however, should be avoided as long as there is heat in the parts. Cold water alone, several times a day, will be very useful till the inflammation has passed away, or has been much reduced. Warm clothing should be worn about the waist and lower extremities of all women subject to this affection. Flannel drawers should always be used in cold weather.

SUPPRESSION OF THE MENSES.

The woman may have been "right," or "regular," for a longer or shorter period, yet owing to some such cause as getting her feet wet, or being in other respects out of health, the dis-

charge may not recur, though she may have the premonitory symptoms in a greater degree than usual. There may be headache, pain in the bones, and especially in the back, with fullness; bearing down, and a distressing irritation of the bowels, but no discharge from the uterus. Now the conditions of the system under which this occurs, are various. The patient may be either in a state of vascular excitement, or she may have spasms of the uterus. If she have fever, headache, a rapid and full pulse, a hot skin, thirst, and tenderness over the uterus, her case is to be treated by bleeding from the arm till she becomes pale; free purgation by salts; confinement to bed; low diet, and leeches to the vulva, or cups to the inner side of the thighs. When the inflammatory action is reduced by these means, the discharges will probably return, and continue, unless interrupted by some new cause.

If the patient be thin and delicate, and of a nervous constitution, the same causes which excited inflammation under the circumstances just described, may occasion the spasmodic contraction of the uterine vessels, and thus give rise to suppression of the menses. The patient, instead of being feverish, will then be chilly, with cold extremities; and although she will suffer some pain, there will not be any particular tenderness on pressure over the region of the uterus. In this condition, the patient should be treated by means of the warm hip bath; warm drinks—such as barley water, rice water, infusion of catnip, or very weak pennyroyal tea, and a Dover's powder, in doses—of each, five grains every three or four hours, till the pain abates. Two drachms of assafoetida, dissolved in six ounces of hot water, used as an injection, often acts with great promptitude. If it do not give relief in a short time, half the quantities may be repeated with the addition of fifty drops of laudanum. If now no menstrual action takes place, we consider the case as one of obstructed menstruation.

OBSTRUCTED MENSTRUATION.—By this term we mean a suppression of some standing. In this form of the complaint, there are generally some symptoms which resemble those of prolapsis. The appetite fails, or becomes deranged; the patient is often afflicted with headache, dropsical swellings, and many other disturbances, which sometimes involve the mind itself, causing even insanity. In some women the

digestion alone is affected. If we know that conception and pregnancy are not the cause of the suppression, the remedies recommended under the head of prolapsus, will be proper; but it may be added that the patient who has once menstruated freely, is generally capable of bearing the loss of more blood than the chlorotic female. An excellent preparation for the purpose of keeping up the regular action of the bowels, and exciting a disposition to menstruation, is the following combination :—

Take Powdered rhubarb,	-	-	-	-	1 drachm.
“ “ aloes,	-	-	-	-	$\frac{1}{2}$ do.
“ Castile soap,	-	-	-	-	8 do.
“ Oil pennyroyal,	-	-	-	-	2 drops.

Mix them, and divide the mass into forty pills. Let two pills be taken every morning and evening, till they operate; then, one or two daily to keep the bowels open.

For that obstruction which accompanies consumption, two grains of aloes, with two grains of the dried sulphate of iron, and Venice turpentine, enough to make them adhere, may be given two or three times a day for some time.

OF PAINFUL MENSTRUATION.

Some females are regular enough as to the periods of their monthly “visitation;” but are annoyed greatly, at these times, by the pains they experience in the lower part of the abdomen, resembling colic or diarrhœa, obliging them to make frequent efforts to relieve the bowels. This distress commonly lasts only for a few hours; and when the discharge is established, it passes away; but, in other cases, there are severe pains, darting through the loins and pubes, attended with an excessive tightness about the head, and weakness of the knees, for some time previous to the discharge. The flow now occurs, not in the thin, fluid form which it usually presents, but in flakes or little masses, sometimes resembling a false membrane which has lined the inside of the uterus. The whole amount of the discharge is generally less than when the secretions are healthy, though sometimes, after the membranous matter is thrown off, the thinner discharge is so abundant as to enfeeble the patient very much; indeed, she always feels more exhausted after painful menstruation, even though the secretion be small. While this state of things exists, the woman has but a slen-

der chance of becoming a mother. In the treatment of this distressing affection, two things are to be done. First, to relieve the paroxysm. If the patient have a flushed face, a hot skin, full, active pulse, and tenderness on pressure upon the uterus, she should be bled, and purged, and should pass half an hour in the hip bath, the temperature of which should be raised gradually, from ninety to one hundred and ten degrees, and then gradually lowered before she leaves it; she must abstain from strong food or heating drinks. If, however, the woman have a feeble, nervous constitution, the above directions will not apply; but in their stead, we should order mild laxatives; such as a Seidlitz powder or two, or a teaspoonful of sulphur and molasses, or a tablespoonful of spiced syrup of rhubarb, combined with a teaspoonful of calcined magnesia. After the operation of this purgative, five grains of camphor may be given every two or three hours, in a little ginger syrup, until the pain is abated. We have also known much good to result from the following prescription:—

Take Prussiate of iron,	-	-	-	-	4 grains.
“ Powdered ipecacuanha,	-	-	-	-	- $\frac{1}{2}$ grain.
“ Powdered opium,	-	-	-	-	1 do.

To be taken at once in a little syrup or molasses.

This has afforded instant relief in several cases in which there was no inflammation. The warm hip bath is extremely useful to delicate and nervous females, at the time of painful menstruation.

In the second place, an effort is to be made to prevent the return of the pain, &c., at the next menstrual period. Upon very high authority, the volatile tincture of guaiacum is recommended as the best medicine for effecting this object. If the patient be free from any inflammatory disposition, she is to take a teaspoonful of this preparation, each morning, noon, and evening, in a wine glassful of sweetened milk, or a little Sherry, Madeira, or Teneriffe wine. It is often necessary to continue this medicine for a long time.

FINAL CESSATION OF THE MENSES.

About the age of forty-five, women, in temperate climates, approach the “time of life.” The monthly periods then become irregular, the discharge sometimes diminishing very

much in quantity, or remaining absent for several months, and then returning so profusely as to prostrate the patient very much. In other cases, the quantity is so small, and gives so little relief, that the woman is subject to giddiness, dimness of vision, vertigo, pain in the head, or other distressing sensations. In some instances, the change takes place without any disturbance. Women, in general, look forward to this period with much anxiety; for there is a popular belief, not without too much foundation in truth, that at, or shortly after, this period, diseases of the breast and uterus exhibit themselves.

Those who are subject to much pain or inconvenience on account of this irregularity, should carefully attend to their condition. If they feel much fulness about the head, with pain or giddiness, they should reduce the quantity of food, and abstain from meat, and all other animal substances. They should keep their bowels free by frequent and small doses of Epsom or Rochelle salts, or cream of tartar and sulphur; and, if not manifestly relieved by this course, they should lose six or eight ounces of blood from the arm occasionally; making the intervals between the bleedings longer and longer. Regular, but not violent, exercise in the open air is of the highest importance.

FALLING OR PROLAPSUS OF THE WOMB.

The uterus is so situated in the human female as to be subject to a variety of displacements, some of which excite so much influence on the health of the individuals who have incurred such accidents, that a few observations on the subject appear peculiarly necessary in a work like the present.

The most common displacement is, perhaps, the descent, falling, or prolapsus of the womb. In this case the uterus becomes too much depressed towards the bottom of the vagina, so that its mouth lies upon the lower surface of the passage, producing a slight bearing-down sensation in the part, and some dull or acute pain in the back, especially when the patient is long upon her feet. This pain disappears soon after lying down, and the patient rises in the morning apparently well; soon after the business of the day commences, her pain and distress return. A discharge of

whites now presents itself, if indeed it have not preceded, or caused the accident. The inconvenience goes on increasing under common exercise, till the patient becomes feeble, nervous and dyspeptic; the local suffering may now become worse, or it may be lost in the impression of pains low down on the left side of the abdomen, and under the short rib; dragging and distressing soreness about the loins, tenderness; dragging and colic; pains about the umbilicus, and perhaps costiveness, and painful or difficult urination. The causes are a sudden fall, lifting a heavy weight, and tight lacing. A walk, or ride, over a rough road may also sometimes produce sudden displacement.

Symptoms.—When in an erect position, the patient complains of an aching in the back, or a dragging sensation about the loins; a sense of weight upon the lower part of the vagina, as if something were falling through; a bearing-down sensation; pains in the hips and thighs, and frequently a sense of weight about the anus; and if much standing, or long walks, aggravate all these symptoms, and a few hours in the recumbent posture, either mitigate or cause them to subside, she has good reasons to suspect that she is afflicted with Prolapsus Uteri.

It often happens that the uterus has been suddenly depressed almost to the orifice of the vagina, pressing upon the rectum and neck of the bladder, so much as to cause the inclination to evacuate them. If this state of things be long neglected, the bladder may almost assume the position of the uterus, and the latter may slip entirely out of the body. In such case the whole organ is suspended between the thighs of the wretched patient, and her sufferings commonly exhaust her physical and mental energies. Yet such is the vigour of constitution in some women, that they move about, and attend to laborious business without evincing, to a mere spectator, the existence of any special disorder. This sudden affection is to be treated by rest on the back in bed, with the hips raised, when the displacement is in the first stage, and of recent occurrence. The same remedies are proper when the disorder has reached the second stage, (the mouth of the womb presenting at the external orifice,) except that it is then often necessary to restore the womb to its natural situation by pressing it upwards and backward by a finger or two passed into the vagina. If there be any pain in this operation, the vagina should be well washed by

injections of thick flaxseed or slippery elm bark tea, for a day or two before the astringent washes are used.

When the womb has passed completely out of the vagina, which is always drawn down and inverted, the parts sometimes become suddenly so swelled that it would be impossible, as well as improper, to return them at once. The inflammation is to be reduced by leeches, ice water, or warm fomenting poultices of bread and milk, or hops and flaxseed, continually applied until the swelling and pain subside; then, with the hand well oiled, and the patients hips well elevated upon a cushion or pillow, at the edge of the bed, the organ is to be passed carefully within the vagina, and restored to its natural situation. The uterine supporter is then to be applied. The bowels and bladder must be regularly evacuated; but the patient should not be allowed to rise for several days, and should even then assume the upright position very gradually and cautiously, after having used anodyne and astringent injections. The injections to be used should be made of the following ingredients.

Take one drachm of alum and dissolve it in half a pint of clear water; or, half an ounce of the inner bark of the black oak, with three gills of water, boil down to a half pint and strain. Two ounces of either of these preparations should be injected into the vagina, by means of a syringe, the extremity of which should be perforated with a number of orifices, to convey the fluid to the different points of the surface on which it is to act.

This operation should be repeated twice a day for a week or more, the syringe being always well lubricated with lard or oil, that it may be introduced without difficulty or pain. From thirty drops to a teaspoonful of laudanum may be used in the injection, when there is much sensibility; and this may be repeated every day or two till the sensibility disappears. The patient may now be allowed to move about her room, and if she discovers no return of the symptoms, she may gradually resume her domestic duties, avoiding for a long time any efforts at lifting, long walks, &c.

In all cases where the above symptoms are manifest, the uterine supporters, such as are now made and used in the city and county of Philadelphia, should be immediately applied; they are decidedly the best instrument that has yet been made, and in most cases they have effected an entire cure in a very short time.

ABORTION, &c.

Every pregnant woman is more or less in danger of abortion. This should be guarded against with the greatest care, as it not only weakens the constitution, but renders the woman liable to the same misfortune afterwards.* Abortion may happen at any period of pregnancy, but it is most common in the second or third month. Sometimes, however, it happens in the fourth or fifth. If it happens within the first month, it is usually called a false conception; if after the seventh month, the child may often be kept alive by proper care.

The common causes of abortion are, the death of the child; weakness or relaxation of the mother; great evacuations; violent exercise; raising great weights; reaching too high; jumping, or stepping from an eminence; vomiting; coughing; convulsion fits; blows on the belly; falls; fevers; disagreeable smells; excess of blood; indolence; violent passions or affections of the mind, as fear, grief, &c.

The signs of approaching abortion are, pain in the loins, or about the bottom of the belly; a dull heavy pain in the inside of the thighs; a slight degree of coldness, or shivering; sickness; palpitation of the heart; the breasts become flat and soft; the belly falls, and there is a discharge of blood or watery humours from the womb.

To prevent abortion, we would advise women of weak or relaxed habit to use solid food, avoiding great quantities of tea, and other weak and watery liquors; to rise early and go soon to bed; to shun damp houses; to take frequent exercise in the open air, but to avoid fatigue; and never to go abroad in damp foggy weather, if they can help it. Women of full habit ought to use a spare diet, avoiding strong liquors, and every thing that may tend to heat the body, or increase the quantity of blood. Their diet should be of an opening nature, consisting principally of vegetable substances. Every woman with child ought to be kept cheerful and easy in her mind. Her appetites, even though depraved, ought to be indulged as far as prudence would permit.

* Every mother who procures an abortion does it at the hazard of her life; yet there are not a few who run this risk merely to prevent the trouble of bearing and bringing up children. It is surely a most unnatural crime, and cannot, even in the most abandoned, be viewed without horror; but in the decent matron, it is still more unpardonable.

When any signs of abortion appear, the woman ought to be laid in bed on a matress, with her head low. She should be kept quiet, and her mind soothed and comforted. She ought not to be kept too hot, nor to take any thing of a heating nature. Her food should consist of broths, rice and milk, jellies, gruels made of oat meal, and the like, all of which ought to be taken cold.

If she be able to bear it, she should lose at least half a pound of blood from the arm. Her drink ought to be barley water, sharpened with the juice of lemon; or, she may take half a drachm of powdered nitre, in a cup of water gruel, every five or six hours. If the woman be seized with a violent looseness, she ought to drink the decoction of calcined hartshorn prepared. If she be affected with vomiting, let her take frequently two tablepoonsful of the saline mixture. In general, opiates are of service; but they should always be given with caution.

Sanguine robust women, who are liable to miscarry at a certain time of pregnancy, ought always to be bled a few days before that period arrives. By this means, and observing the regimen above prescribed, they might often escape that misfortune.

Though we recommend due care for preventing abortion, we would not be understood as restraining pregnant women from their usual exercise. This would generally operate the quite contrary way. Want of exercise not only relaxes the body, but induces a plethora, or too great a fulness of the vessels, which are the two principal causes of abortion. There are, however, some women of so delicate a texture, that it is necessary for them to avoid almost every kind of exercise during the whole period of pregnancy.

Where abortion cannot be prevented, the next indication is to conduct the patient safely through the process, by directing our immediate attention to the hemorrhage; to check which, bleeding is resorted to by some practitioners; but, unless the vessels be above their natural force and strength of action, it is not likely to be of any service. Astringent injections, composed of alum, oak bark, or sulphate of zinc, and cold applications to the loins, &c., are often employed in floodings; and where the hemorrhage is slight, these immediately will prove beneficial; but in floodings without any remission, they do not appear calculated to afford much relief. In such cases it will be better to trust to

the formation of a coagulum: enjoining rest, giving an anodyne at bed time, and keeping the bowels open by some gentle aperient. But, where these means have been pursued without effect, and the woman becomes exposed to imminent danger from great loss of strength, the most powerful astringents must be employed; such as the sulphate of zinc* and superacetate of lead;† of the last, one, two, or three grains may be given, repeating the dose every three or four hours according to the urgency of the case. As soon, however, as the hemorrhage has stopped, give a dose of castor oil in order to prevent any bad effects from the action of these remedies on the coats of the stomach and intestines. The application of cloths dipped in cold water to the back and external parts will have a much better effect than internal astringents, consequently ought never to be neglected. The introduction of a piece of smooth ice into the vagina has often a very speedy effect in arresting the hemorrhage. A snow ball wrapt in a piece of soft linen will have the same effect; but neither of these should be continued so long as to cause pain.

The most effectual means, then, to be resorted to for relieving the hemorrhage attendant on abortions are: if the pulse be full, hard, and frequent, bleeding is to be resorted to; if not, the foxglove is to be trusted to, either in the form of pill, tincture, or infusion: the application of cold to the thighs and pubes; admitting a free circulation of cool air in the patient's bed chamber; keeping the heat of the body at a low temperature; absolute rest in a horizontal position, and which must be continued during the whole process, however long it may be; cold acidulated liquors for ordinary drink; light food taken in small quantities at a time; carefully abstaining from every thing stimulant, and plugging up the vagina, &c., &c.

Sometimes the hemorrhage is kept up by some portion of the ovum remaining partly within and partly without the uterus; when, should circumstances demand it, this should

* Take Sulphate of zinc,	-	-	-	-	-	2 to 5 grains.
" Confect. of roses,	-	-	-	-	-	$\frac{1}{4}$ scruple.
" Opium,	-	-	-	-	-	$\frac{1}{2}$ grain.
Make a bolus, to be taken every fourth hour.						

† Take Superacetate of lead,	-	-	-	-	-	2 grains.
" Opium,	-	-	-	-	-	$\frac{1}{4}$ grain.

Make a pill, to be given every hour, should it be required, until six pills are given.

be removed by careful manual interference with a pair of armed forceps.

For some days after abortion the patient should be confined to bed, as getting up too soon is apt to produce a debilitating discharge. Women disposed to abort should the more sedulously avoid the exciting causes of abortion at those dates of utero-gestation when it is most apt to take place.

MANAGEMENT OF CHILDBED-WOMEN.

Many diseases proceed from the want of due care in childbed; and the more hardy part of the sex are most apt to despise the necessary precautions in this state. This is peculiarly the case with young wives. They think, when the labour-pains are ended the danger is over; but in truth it may only then be said to be begun. Nature, if left to herself, will seldom fail to expel the *fœtus*; but proper care and management are certainly necessary for the recovery of the mother. No doubt mischief may be done by too much as well as by too little care. Hence females who have the greatest number of attendants in childbed, generally recover the worst. But it is not peculiar to the state of childbed. Excessive care always defeats its own intention, and is generally more dangerous than none at all.

During actual labour, nothing of a heating nature ought to be given. Spirits, wines, cordial waters, and other things which are given with a view to strengthen the mother, and promote the birth, for the most part tend only to increase the fever, inflame the womb, and retard the labour. Besides, they endanger the woman afterwards, as they occasion violent and mortal hemorrhages, or dispose her to eruptive and other fevers.

PARTURITION.—Is that natural process which, at the expiration of forty weeks from conception, is matured, and by which the womb detaches and expels its contents, and returns nearly to the same condition in which it was previous to its impregnation.

CLASSIFICATION OF LABOURS, &c.—The divisions of labours, originally made into *natural* and *preternatural*, is suffi-

ciently comprehensive, whilst it forcibly recommends itself by its simplicity and perspicuity.

Natural labour, of which we shall only treat here, supposes four things: 1. That the vertex presents. 2. That there be sufficient room in the pelvis to admit of the ready descent of the child in that direction which permits the occiput or back part of the head to emerge under the arch of the pubis. 3. That there be parturient energy adequate to the expulsion of the contents of the uterus, without manual interference, and without danger either to the mother or child: and, 4. That the process of parturition be completed within a moderate time.

STAGES OF LABOUR.—Certain occurrences take place during the progress of parturition, which may be managed under three divisions or stages; the *first* comprehends all that may occur before the complete dilatation of the os uteri; the *second* includes all that takes place between the development of the os uteri and the expulsion of the child; the *third* embraces every thing connected with the detachment and extension of the placenta and its adherent membranes.

Symptoms preceding Labour.—For several days before the actual existence of labour arrives, there are often certain promonitory symptoms, which, by women who have borne children, are viewed as precursors of that eventful hour which many of them so much dread. Among these are:

1. *Restlessness*, particularly at night, very frequently precedes parturition for days and weeks, and is rarely to be considered as bearing unfavourably in labour.

2. *Subsidence of the womb and abdomen* is not an unusual monitor of the approach of suffering. It may be viewed in a favourable light, inasmuch as it indicates room in the pelvis.

3. *Glairy mucus secretion* from the os uteri and vagina, popularly termed *shew*, sometimes occurs for days before the more active symptoms of labour. It is often streaked with blood, and tends to lubricate the parts concerned in parturition.

4. *Irritability of the bladder and rectum*, demanding their frequent relief, is another occasional precursor of labour.

Symptoms accompanying Labour.—Owing to the resistance which the womb encounters during its contractile efforts, *pain* follows every such contraction; but the pain attendant on parturition differs very materially in its nature,

and in its influence in the uterus. These paroxysms of pain are either *intestinal* or *uterine*.

Paroxysms of intestinal pain, or such as are termed false or spurious, may be distinguished from genuine labour-pains by being unconnected with uterine contraction; by attacking different parts of the abdomen; and by recurring irregularly. These pains usually originate in some source of intestinal irritation, and may almost always be removed by emptying the bowels, and subsequently exhibiting an opiate. By the observant practitioner, should one be present, they cannot be confounded with pain in the bowels.

The true uterine pains are either dilating or expulsive.

Dilating pains, or, as they are popularly termed, *grinding* pains, result from contraction of the womb. They are principally confined to the back, and occur in the earliest stage of labour, and are often peculiarly distressing to the patient, who expresses herself by restlessness, despondency, and moaning. They often continue for a long time without the intermissions being free from uneasiness, and appear almost exclusively to dilate the mouth of the womb, having little influence over the fundus of the uterus. It is during the existence of these dilating pains that cold shiverings most commonly come on, and may be relieved by avoiding spiced or fermented fluid, and by administering any simple warm diluents.

When the mouth of the womb is considerably dilated, expulsive pains, sometimes termed *forcing* or bearing-down pains, commence in the loins, and gradually proceed round the abdomen, till they meet at the region of the pubes, and dart down the *labia pudendi* and thighs. If the accoucheur's hand be placed on the flaccid sides of the abdomen, previous to the accession of a paroxysm of expulsive pain, before the woman is aware of it, the womb may be felt contracting to a hard, tense, incompressible tumor. These pains observe regular intervals of ease, which become shorter, whilst the pains, in an inverse ratio, increase in their duration and severity; and now it is that the abdominal muscles and diaphragm afford their assistance.

During each propulsive effort a larger portion of the membranes, distended with the liquor of the amnion, is forced through the mouth of the womb, performing to it, and all the parts through which the child is to pass, the office of an easy but powerful wedge. With these pains there is often a fre-

quent disposition to empty the rectum; and sometimes this inclination is so harassing as to justify the administration of a small injection, with half a drachm of the tincture of opium.

Vomiting is a common attendant on uterine pain, and is beneficial by rejecting food, which, from its quality or quantity, may be a source of irritation to the stomach. It principally occurs during the dilating pains, and unquestionably assists in the relaxation and dilatation of the mouth of the womb.

In a protracted labour, when vomiting continues or returns, after the mouth of the womb is fully dilated, with abdominal tension and pain, without uterine contractions, and with ejection from the stomach of fluid like dark coffee grounds, with foul tongue, and rapid and hard pulse, it generally must be taken as indicative of inflammatory action, and as requiring immediate and most efficient interference. Besides these attendants on parturition, the pulse usually becomes quickened and full; the countenance florid; the whole surface of the body covered with profuse perspiration; and the lower extremities cramped.

The Process of Natural Labour.—The process of natural labour, to use the words of a modern writer, is at once so simple and beautiful, that it cannot fail to excite the admiration of those who look beneath the surface of the operations of nature. Without repeating what has already been advanced respecting the precursory and accompanying symptoms of delivery, we shall merely recall to the mind those statements, as constituting a part of the history of this process. The symptoms which announce the commencement of natural labour have continued for an indefinite time; pains in the loins, darting through the pelvis, with an appearance of *shew*, indicate the approach of unequivocal evidences of this stage of parturition. From time to time these pains are of the *dilating* kind, and on an examination *per vaginam*, will be found to be diminishing the thickness of the cervix uteri more than to be opening the mouth of the womb. When the neck of the womb becomes reduced to the thickness of the other parts of that organ, it begins to open, and as soon as it can admit the extension of any part of the membranes distended with the liquor of the amnion, the pains rather assume the *expulsive* character, and there will be a sensible bearing down of the whole uterine tumor.

Successive paroxysms of pain dilate the mouth of the womb more and more, whilst the protruded membranes, distended like a tense bladder, fill up the opening, and perform the office of an inimitable wedge, till the womb and the entrance to it form one continuous passage. Soon after this the membranes generally burst during a strong pain, having previously contributed to the dilatation of the vagina; and with the escape of the *waters*, or liquor of the amnion, there is sometimes a temporary suspension of pain, and the head of the child falls into the superior aperture or brim of the pelvis, or descends into the cavity; but more frequently this advance is not made until several pains have followed this occurrence.

The contractions of the womb recurring with augmented frequency and force, gradually propel the fœtus along the passages, until the head presses on the perinæum or fork, which is put on the full stretch; and also against the soft parts which it protrudes. These by degrees dilate, and permit the back part of the head to emerge under the arch of the pubes, and with the complete extrusion of the head, the other parts of the body are expelled, sometimes by the same pain, but more frequently by one which speedily follows.

The same paroxysm of pain that expels the child, now and then detaches and expels the placenta, or after-birth, commonly so called; but more frequently the womb remains at rest for about a quarter of an hour, when it resumes its contractions, and throws it off with the adherent membranes. This constitutes the interesting process of natural labour, in which the uterus requires no officious interference.

All that it becomes necessary for the accoucheur to do during this interesting process of natural labour, is to support the perinæum by his hand, covered smoothly with a soft napkin, and so applied as to give equable support, without in the slightest degree resisting the exit of the head. No other interference, in natural labour, is justifiable, and too strong terms cannot be employed to reprobate the practice of hastening the birth of the body, dragging it forcibly by the head into the world. It should be left to be expelled by the unaided contraction of the uterus.

As soon as the child is thus brought into the world, and manifests unequivocal signs of life, the navel string must be tied, by passing a ligature, consisting of a few threads, or a thin piece of tape, round it, at about the distance of two inches from the navel. The funis may then be divided by a

round-pointed pair of scissors, at a point equidistant from each ligature, taking care to cut nothing but the funis. All this should be done in the most delicate manner under the bed clothes, without exposing either the mother or child.

The navel string being thus secured, and the child separated from the mother, it is to be transferred to the nurse, whilst the bandage, previously passed round the body of the mother, should be moderately tightened, or the womb supported by gentle pressure made by an assistant, which will be found very materially to aid its efforts to detach and expel the placenta.

Management of the After-burden.—The management of the placenta constitutes a very important part of natural labour; and if the womb be not permitted to empty itself gradually, some untoward and alarming circumstance may occur in this stage of parturition. Generally from twenty to thirty minutes elapse between the birth and the expulsion of the placenta. The woman then complains of a slight pain in her back, or abdomen, and this secondary contraction of the uterus detaches the placenta, although it but rarely expels it from the passages; whence, however, it may usually be easily removed by coiling the funis round two of the fingers of the right hand, whilst guided by the cord, the thumb and index finger of the left hand should be passed up to its insertion into the placenta, which, if it can be felt, is a pretty certain indication of the detachment of the whole mass from the sides of the womb. By this means, also, the navel string is prevented from breaking off, and a firmer hold of the placenta is obtained.

To prevent the possibility of inverting the womb, or from its occurrence without knowing it, the placenta should be permitted to slip by the fingers of the left hand into the vagina; and the withdrawing of the placental mass should always be in the axis of the brim, cavity, and outlet of the pelvis, as it passes those parts. The hand of the accoucheur should afterwards be laid on the abdomen, to ascertain that the uterus is well contracted: and the pulse should be felt, lest internal hemorrhage, re-distending the uterus, may be going on, to the endangering of the patient's life.

It is of great importance that a bandage be passed over the region of the womb: this being done, and a well-aired napkin applied to the labia pudendi, or external parts, some

mild and cool nourishment may be given to the woman, who, after having been suffered to remain quiet for about half an hour, should have her soiled linen withdrawn, and, without being raised from her horizontal posture on any pretence, may be drawn up to the head of the bed, whilst she herself remains perfectly passive, without taking any part in this operation, lest hemorrhage or prolapsus of the womb should follow.

Treatment after Delivery.—After delivery, the woman ought to be kept as quiet and easy as possible. Her food should be light and thin—as gruel, panada, &c.—and her drink weak and diluting.

Sometimes an excessive hemorrhage, or flooding, happens after delivery. In this case the patient should be laid with her head low, kept cool, and be in all respects treated as for an excessive flow of the menses. If the flooding prove violent, linen cloths, which have been wrung out of a mixture of equal parts of vinegar and cold water, should be applied to the belly, the loins, and the thigh: these must be changed as they grow dry, and may be discontinued as soon as the flooding abates.

In a violent flooding after delivery, I have seen very good effects from the following mixture:—Take of pennyroyal water, simple cinnamon water, and syrup of poppies, each two ounces; elixir of vitriol, a drachm. Mix, and take two tablespoonsful every two hours, or oftener, if necessary.

AFTER-PAINS.—In the childbed state, women are not unfrequently distressed with sharp pains in the belly, back, and loins, recurring at intervals for several days after delivery. These resemble the pains of labour; being, however, somewhat slighter in degree. They continue about two or three days, and are not attended with any danger. One great matter is, to be sure that the pains complained of are after-pains, and not the effect of some more serious disease. After-pains are distinguished by being alternated with intervals of ease, and by being generally attended with the discharge of some coagulated blood from the womb; pain is not excited by pressure on the belly.

After-pains are alleviated by giving an opiate, &c., shortly after delivery, and repeating the medicine in smaller doses

every six or eight hours, taking care not to injure the nervous system by taking too much opium.

Take Spirits of camphor,	-	-	-	1 tablespoonful.
" Laudanum,	-	-	-	1 teaspoonful.
" Powdered gum arabic,	-	-	-	2 drachms.
" White sugar,	-	-	-	1 ounce.
" Water, pure,	-	-	-	6 ounces.

Mix, and of this take a tablespoonful every hour or two until the pain ceases.

COSTIVENESS.—Costiveness is apt to prevail after delivery, and should always be removed by a laxative clyster, or some gentle purgative, such as neutral salts and manna, or about an ounce of castor oil.

INFLAMMATION OF THE WOMB.—An inflammation of the womb is a dangerous and not unfrequent disease after delivery. It is known by pains in the lower part of the belly, which are greatly increased upon touching; by the tension or tightness of the parts; great weakness; change of countenance, a constant fever, with a weak and hard pulse; a slight *delirium*; sometimes incessant vomiting; a hiccup; a discharge of reddish, stinking, sharp water from the womb; an inclination to go frequently to stool; and heat, and sometimes total suppression of urine.

This must be treated like other inflammatory disorders, by bleeding and plentiful dilution. The drink may be thin gruel or barley water; in a cup of which half a drachm of nitre may be dissolved and taken three or four times a day. Clysters of warm milk and water must be frequently administered: and the belly should be fomented by cloths wrung out of warm water, or by applying bladders, filled with warm milk and water, to it.

SUPPRESSION OF THE LOCHIA.—A suppression of the *lochia*, or usual discharges after delivery, and the milk fever, must be treated nearly in the same manner as an inflammation of the womb. In all these cases, the safest course is plentiful dilution, gentle evacuations, and fomentations of the parts affected. In the milk fever the breast may be embrocated with a little warm linseed oil. The child should be often put to the breast, or it should be drawn by some other person.

Nothing would tend more to prevent the milk fever than putting the child early to the breast. The custom of not

allowing children to suck for the first two or three days, is contrary to nature and common sense, and is very hurtful both to the mother and child. Every mother who has milk in her breasts, ought either to suckle her own child, or to have her breasts frequently drawn, at least for the first month. This would prevent many of the diseases which prove fatal to women in childbed.

INFLAMMATION OF THE BREAST.—When an inflammation happens in the breast, attended with redness, hardness, and other symptoms of suppuration, the safest application is a poultice of yeast or bread and milk, softened with oil or fresh butter. This may be renewed twice a day, till the tumor be either discussed or brought to suppuration. The use of repellents, in this case, is very dangerous; they often occasion fevers, and sometimes cancers; whereas a suppuration is seldom attended with any danger, and has often the most salutary effects.

FRETTED OR CHAPPED NIPPLES.—When the nipples are fretted or chapped, they may be anointed with a mixture of oil and beeswax, or a little powdered gum arabic may be sprinkled on them. An application of borax to the nipples has a very good effect. Should the complaint prove obstinate, a cooling purge may be given, which generally removes it.

PUERPERAL FEVER.—The most fatal disorder consequent upon delivery, is the *puerperal*, or childbed fever. It generally makes its attack upon the second or third day after delivery. Sometimes, indeed, it comes on sooner, and at other times, though rarely, it does not appear before the fifth or sixth day.

It begins, like most other fevers, with a cold or shivering fit, which is succeeded by restlessness, pain of the head, great sickness at the stomach, and bilious vomiting. The pulse is generally quick, the tongue dry, and there is a remarkable depression of spirits and loss of strength. A great pain is usually felt in the back, hips, and region of the womb; a sudden change in the quantity or quality of the *lochia* also takes place, and the patient is frequently troubled with a *tenesmus*, or constant inclination to go to stool. The urine, which is very high coloured, is discharged in small quantity,

and generally with pain. The belly sometimes swells to a considerable bulk, and becomes susceptible of pain from the slightest touch. When the fever has continued for a few days, the symptoms of inflammation usually subside, and the disease acquires a more putrid form. At this period, if not sooner, a bilious or putrid looseness, of an obstinate and dangerous nature, comes on, and accompanies the disease through all its future progress.

There is not any disease that requires to be treated with more skill and attention than this: consequently the best assistance ought always to be obtained as soon as possible. In women of plethoric constitutions, bleeding will generally be proper at the beginning; it ought, however, to be used with caution, and not to be repeated, unless where the signs of inflammation rise high; in which case it will also be necessary to apply a blistering plaster to the region of the womb.

SWELLED LEG.—This is a peculiar swelling of the leg, which occurs in women after child-birth. It is a tense, clear swelling of one of the limbs, generally beginning at the upper part, and increasing pretty quickly; the pain is considerable, and accompanied with fever. It occurs a few days after delivery, and commonly begins at the groin, the hip, or top of the thigh, being preceded by shiverings, and some feverish symptoms. There is pain, weight, and stiffness, and difficulty of moving either the body or lower limbs. The part complained of is generally hotter than natural; a little swelled, but not discoloured; at length the pain and swelling increase, and extend to the leg and foot; at which time the pain diminishes, except on motion. The whole extremity is now swelled; but it does not, like a dropsical swelling, change its bulk by posture, nor does it pit upon pressure, being tense, elastic, and very painful when touched. When the acute symptoms are over, the patient feels much weakened, and the limb is stiff, heavy, and weak.

Treatment.—If the inflammatory symptoms are high, a general bleeding will be proper, as also purging and antimonials. For the swelling of the leg, the best applications at the beginning, is to foment the parts with flannel, wrung out of hot vinegar; continue this for some hours, and if it does not seem to give relief, then rub it with liniment made of spirits of camphor, hartshorn, and sweet oil, equal parts, three

or four times a day. As a purgative, take calomel, five grains; jalap, ten grains; rhubarb, ten grains; gamboge, three grains; make a pill, to be taken once a day for three days; then one dose of senna and salts.

SORE MOUTH OF INFANTS.

Sore mouth is a disease very common to infants within the first month, though it may occur later. It consists of small white specks on the tongue, and inside of the cheeks, with more or less derangement of the stomach and bowels.

There are two forms of this disease, a milder one, in which the affection of the mouth is slight, and the constitutional symptoms not severe; and another form, in which both the local and constitutional symptoms are rather violent. In the milder form a few scattered spots appear on the tongue, or within the lips, like little bits of curds; these soon become yellowish, and fall off, leaving the parts below of a red or pink colour. The bowels are somewhat deranged, griping or purging occurs, the stools are greenish, ill-smelled, and containing portions of undigested milk. The child is fretful, and the mouth is rather warmer than usual.

The other variety of the disease begins with great oppression and feverishness; sometimes with fits and violent screaming. When the spots begin to appear, the feverish symptoms are mitigated a little, but do not go off entirely; and it would appear that the ulcerations are not confined to the mouth, but go through the whole alimentary canal, causing severe pain, vomiting, griping and purging; and the matter discharged is so acrid, as even to produce excoriation of the parts about the anus. The mouth is very tender, and the child sucks with pain and difficulty.

Cause of the disease appears to depend upon an irritation of the stomach and bowels. It may be caused by improper, or too much food, or a bad state of the mother's milk. The stomach and bowels of infants are peculiarly delicate, and the mouth sympathizes very readily with the derangements of those parts. Bad air, or want of due attention to the cleanliness of the child's person, or their clothing. Exposure to cold and damp has also a tendency to bring it on.

Treatment,—As the disease is frequently connected with considerable acidity of the stomach, a little magnesia should be given as a corrective, or the chalk mixture, in doses of a

teaspoonful every two hours, to infants within the year, or larger doses to those who are farther advanced. Mild cooling substances may be applied to the mouth, as powdered borax mixed with a little honey, or a weak solution of alum, weaker than what a sound mouth could bear. The greatest attention must be paid to the food of the child. If not weaned, it should be confined to the breast milk of a healthy nurse. If the child be beyond one year of age, its sole diet should consist of rice, or gum water sweetened with loaf sugar; to which may be added, as the disease gets better, an equal quantity of fresh cow's milk boiled. The child should be immersed in a warm bath daily, and breathe constantly a pure dry air. In severe cases, particularly if the belly be sore, or the child be affected with much griping, two or three leeches should be applied over the stomach.

GOUT.

Gout is divided into the acute and chronic forms.

Symptoms of the Acute Form.—Violent inflammation of the ball of the great toe of one foot, attended with excruciating pain, redness of the skin, and distension of the neighbouring veins. The cause of its occurrence, however, in a large proportion of cases, is known to be a certain morbid state of the stomach, and of the digestive system generally.

The subjects in whom it most usually shows itself, are those of sanguine temperament, of full habit, florid complexion, and rather coarse skin; persons of rather sedentary, indolent mode of life, and who perhaps indulge freely in the pleasures of the table; depressed spirits, and protracted study. It is more common in cities than in the country; in men than in women; in those using principally animal food, than in those restricted to vegetable diet. Gout commonly makes its attack with pain in the ball of the great toe, and with a feeling of general chill. As the pain increases, this chill gives place to heat, and the usual symptoms of fever. The joint soon becomes more swollen, red, and tense; the redness disappearing when the surface is touched, and returns when the pressure is removed. The paroxysm of pain and inflammation continues, perhaps, with little abatement, for twenty-four hours. At length, probably on the night following that of the attack, it begins to subside, and terminating with a gentle sweat, leaves the patient to the enjoyment of repose. For

several days the symptoms recur in the evening, though perhaps in a more tolerable form, and then subside, leaving the foot apparently sound, and the system in a state of increased health and vigour. After the first fit, especially if the alarm of the patient induce him to reform his mode of life, the disease often absents itself for three or four years; then, generally on the occasion of some excess or imprudence; such as exposure, cold, severe bodily labour, mental application, or, in a word, any disturbance of the system, the attack is renewed. At each return, the interval is usually shortened, while, on the contrary, the duration of the fit is augmented, and instead of subsiding in three or four days, it will at length continue, with occasional remissions, for many weeks. From the prolongation of the fits, and the contraction of the intervals, the affection sometimes becomes almost constant, so that the patient scarcely ever enjoys good health.

As the disease advances, the symptoms are modified. At first the paroxysm appears without warning; afterward, it is preceded by a sense of coldness of the lower limbs; occasional pricking, alternating with numbness; slight shivering; disturbance of the stomach, &c. At first, only a single joint is affected; then the two feet are attacked in succession; the pain commencing in one as it subsides in the other. Then, perhaps, both are affected at once, or alternately. At last, the other joints become involved, and the disease becomes universal, or nearly so; but the intensity of the pain diminishes, so that, although there be no freedom from it at any time, the patient is able to give some attention to his ordinary occupations, even during the paroxysms. Some permanent traces of the attacks are soon visible in the principal joints, which become swollen, stiff, and weakened, so that walking is performed with more and more difficulty. Meanwhile, the small joints of the toes and fingers are embarrassed by a whitish deposit, once supposed to be actually chalk, and still so called in popular language; but, in fact, consisting of the acids of the urine in combination with soda. Such quantities of this deposit sometimes accumulate, that an individual is mentioned who used, in playing cards, to score the points of the game on the table with his knuckles.

It is a general impression that gout, when it becomes habitual, absorbs all the morbid tendencies of the system, and keeps all other diseases at a distance. However this may be, it is worthy of remark, that individuals severely affected

with it continue to live to an advanced age. When gout proves fatal, it is generally by receding, as it is termed; that is, by suddenly quitting the extremities, while the stomach, the brain, or some other important organ, becomes the seat of inflammation. It would be wrong to conclude that an attack of gout is always a certificate of luxury, wealth, or indulgence. We have repeatedly met with it among the poor and the abstemious, both by choice and necessity; in old soldiers, sailors, shoeblacks, washerwomen, and temperate farmers.

Treatment.—Cathartics and diuretics are decidedly beneficial in gout. Two or three evacuations should be procured daily. Take extract of colacynth, half a drachm; calomel, fifteen grains; tartar emetic, one grain; rhubarb, five grains. Make into a mass, and divide into sixteen pills. Dose, two or three every evening. As a diuretic, take tincture of colchicum, two drachms; antimonial wine, one drachm; tincture of digitalis, two drachms. Dose, twenty drops on a lump of loaf sugar, once a day. Opium is a valuable palliative in cases attended with extreme pain; taken in one grain doses, every two hours until the pain remits. As an outward application, take spirits of camphor, hartshorn, equal parts, with sweet oil. Make a liniment.

ST. VITUS'S DANCE.

This disease, so called, is marked by the convulsive motion of the limbs, as if the person was dancing. These convulsive motions, most generally, are confined to one side, and affects principally the arm and leg. When any motion is attempted to be made, various fibres of other muscles act which ought not; and thus a contrary effect is produced from what the patient intended. It is chiefly incident to young persons of both sexes, and makes its attack between the age of ten and twenty, occurring but seldom after that of puberty.

By some practitioners it has been considered rather as a paralytic affection than as a convulsive disorder, and has been thought to arise from a relaxation of the muscles, which, being unable to perform their functions in moving the limbs, shake them irregularly by jerks.

The disease is occasioned by various irritations, such as teething, worms, offensive smells. It also arises in conse-

quence of violent affections of the mind, as horror, fear, and anger. In many cases it is produced by general weakness; and, in a few, it takes place from sympathy, at seeing the disease in others.

The fits are sometimes preceded by a coldness of the feet and limbs, or a kind of tingling sensation, that ascends like cold air up the spine, with obstinate costiveness. At other times, the accession begins with yawning, stretching, anxiety about the heart, palpitations, nausea, difficulty of swallowing, noise in the ears, giddiness, and pain in the head and teeth; and then comes on the convulsive motions. These discover themselves at first by a kind of lameness, or instability of one of the legs, which the person draws after him in an odd and ridiculous manner; nor can they hold the arm of the same side still for a moment; for if they lay it on their breast, or any other part of their body, it is forced quickly from thence by an involuntary motion. If they are desirous of drinking, they use many singular motions before they can carry the cup to the head, and it is forced in various directions, till at length they get it to their mouth, when they pour the drink down their throat in great haste, as if they meant to afford amusement to the by-standers. Sometimes various attempts at running and leaping take place; and at others, the head and trunk of the body are affected with convulsive motions. In many instances, the mind is affected with some degree of fatuity, and often shows the same causeless emotions (such as weeping and laughing) which occur in hysteria.

Treatment.—In the treatment of this complaint are, first, to obviate the several exciting causes; second, to correct any faulty state of the constitution, which may appear to give a pre-disposition; and third, to use those means to allay irregular muscular action. Among the sources of irritation, the most common is the state of the bowels; and the steady, but moderate, use of active cathartics has often a great effect upon the disease, improving the appetite and strength at the same time; and the best cathartic is, senna and salts, rhubarb, and jalap. Calomel, in conjunction with the rhubarb and jalap, would be advantageous where the liver is torpid.

The general debility usually attending, indicates the employment of tonics; for this purpose the sulphate of quinine, in one grain doses, three times a day. Sometimes, in violent cases, and in irritable constitutions, the occasional exhibition

of opium or other sedatives, may be required, taking care, however, that the bowels are not confined thereby. Occasionally too, where the above means are not successful, the antispasmodics may be tried, as ether, camphor, musk, &c. Electricity also has been by some recommended.

CARBUNCLE.

Carbuncle is an inflammatory tumor, resembling a very small bile in a state of intense irritation, and very painful. It is not seated beneath the true skin, but in its very substance, and consists in an inflammation of all the soft parts, contained in one or more of the minute, tendinous, or fibrous rings which form the outer substance of the true skin, each of which gives passage to the delicate extremity of a nerve of sensation, and its accompanying blood vessels. After several days of intense agony, an imperfect suppuration comes on, and, flowing into the few unclosed cells of the cellular tissue, renders the tumor peculiarly quaggy or doughy. In the meantime, the centre of the tumor mortifies, and numerous little ulcerations on the skin give partial exit to the ill-conditioned pus.

During this process, unfortunately, the pain and irritation are not abated, for new parts around the circumference of the dead skin are continually taking on the same kind of inflammation, and propagating the disease. The complaint is peculiar to persons whose constitutions are weakened by disease, luxurious habits of living, or intemperance.

Treatment.—The best and least painful mode of treating this affection, is to divide the tumor at once, with a sharp knife, and then to dress it with poultices of bread and milk; when mortification is at its height, the charcoal poultice is advisable. The late Dr. Physick recommends the destruction of the entire thickness of the skin over a wide space in the center of the tumor with the vegetable caustic, which requires to be wet at the end of the stick, and to be rubbed for some time over the surface. This destroys all the strangulated parts at once.

CORNS.

Corns are nothing else than unusual growths of the cuticle, caused by habitual pressure upon the prominent portions of

the body. They are chiefly confined to the joints of the toes, where they are consequent to the use of tight boots or shoes; but they do not differ from the callosities not unfrequently noticed on the instep, heel, hip, elbow or knee, when either of these parts is subjected to long continued pressure. Their consistence seems to be intermediate between that of ordinary cuticle and that of the nails; though, after a time, it becomes analogous to the latter.

These excrescences are themselves incapable of inflammation; but they often occasion great suffering when they inflame the parts around them by their pressure. They sometimes become surrounded by a little abscess, and are then cast off or cured.

The proper treatment of corns is very simple,—and, if faithfully attended to,—almost certainly successful. Let the part be well soaked in warm water; then with a sharp pen-knife, pare away the summit of the excrescence until it is level with the sound skin, or a little depressed below it. In the next place, provide some buckskin well coated with good adhesive plaster. Take a circular piece of this, about three times as great as the diameter of the corn, and cut a hole in its centre, a little larger than the base of the corn. The plaster is now applied around the excrescence, which occupies the central space, so that nothing can press upon it. The cause being thus removed, the disease soon disappears. If the corn should grow rapidly for a time, let it be frequently retrimmed and the plaster reapplied.

When corns occur between the toes, it is often impossible to surround them, and it is then best to place one or two layers of the buckskin between the points of the toes, so as to keep them permanently apart;—but, let it be steadily remembered that the application of a dressing, directly over the excrescence, tends to increase, rather than diminish it.

Under the foregoing treatment, perseveringly and judiciously applied, we believe that a cure will invariably take place in a reasonable time.

SOFT CORNS.—Near the junction of two toes,—where the skin is perpetually folded in contact with itself,—it is not uncommon to observe a thickening and softening of the cuticle, with a thin and red portion of surface in the middle, which bears no slight resemblance to a corn which has been thoroughly soaked, and then cut to the quick in the centre. This affection has been called "*soft corn*," but although fre-

quently associated or complicated with true corns, it is totally different in its nature. The thickening of the cuticle in this case, results from the simple imbibition of the moisture of the part, and the thin, red surface is a portion of skin, transformed by moisture, and the exclusion of air, into a tissue resembling the mucuous membrane, and secreting a vitiated and strangely fetid mucoid discharge. The affection is often intensely painful: it is sometimes seen surrounding the base of a true corn in the fold of the toes.

In the treatment of soft corns, the separation of the parts is as necessary as in true corns; but there is little disadvantage here, in applying our dressings directly to the part; for pressure is not among the causes of the disease. The most effectual mode of cure is to keep the toes apart; to wash the sore thoroughly with Castile soap and water, twice every day; then to dust the part well with the powder of carbonate of zinc, and to place a piece of soft patent lint on the diseased surface. Cleanliness, and some drying or separating material occasionally applied are necessary, permanently, to prevent the recurrence of the disease;—an accident always likely to occur, from the constancy of the cause.

TETTER.

Tetter is distinguished by an assemblage of numerous little creeping ulcers, in clusters, itching very much, and difficult to heal. It appears indiscriminately in different parts of the body, but most commonly the face, neck, arms, wrists and hands, in pretty broad spots and small pimples. These are generally very itchy, and after continuing a certain time, they at last fall off in the form of a white powder, similar to fine-bran, leaving the skin below apparently sound; but again returns in the form of red pustules, which originally are separate and distinct, but which afterwards run together in clusters. At first they seemed to contain nothing but a thin watery serum, which afterwards turns yellow, and extends over the whole surface of the part affected; it at last dries into a thick crust or scab. These ulcers do not, in general, proceed further down than the cellular tissues, yet sometimes the discharge is so very penetrating and corrosive as to destroy the skin, and even the muscles themselves.

Treatment.—In the treatment of this disease the remedies are few and simple. In the first place it is best to prepare

the system for the cure, by commencing the taking of cream of tartar and flour of sulphur, a small teaspoonful of each, in molasses, once a day for a week. Then take a quarter, or a half a pound of the green sullentine, bruise it, then put it into a pint of whiskey, wash the parts three or four times a day, for a month, or until a cure is effected. Another very good remedy is to take, corrosive sublimate one drachm, put it into a pint of whiskey, wash the parts frequently. I have succeeded in curing some very bad cases of tetter by this mode of treatment,

SCURVY.

Scurvy is characterized by extreme debility; complexion pale and bloated; spongy gums; the teeth become loose; livid spots on the skin; breath offensive; swellings in the legs; fetid urine; and extremely offensive stools. The scurvy comes on gradually, with heaviness, weariness, and unwillingness to move about, together with dejection of spirits, considerable loss of strength, and debility. The scurvy is a disease of a putrid nature, much more prevalent in cold climates than in warm ones, and which chiefly affects those shut up in confined places, owing, it is supposed, to being deprived of fresh air, and the prevalence of cold and moisture, and by such other causes as depress the nervous energy: as indolence, confinement, want of exercise, neglect of cleanliness, sadness, despondency, &c.

Treatment.—In the cure as well as the prevention of scurvy, much more is to be done by regimen than by medicines, obviating, as far as possible, the several remote causes of the disease, but particularly providing the patient with wholesome diet; it has been found that those articles are especially useful which contain a native acid, such as lemons, oranges, &c. Vinegar and sourcrout, have likewise been used with much advantage; also brisk fermenting liquors, as spruce beer, cider, and the like. Mustard, garlic, horse-radish, and others of a stimulating quality, promoting the secretions, were much relied upon, and no doubt proved useful to a certain extent. The spongy state of the gums may be remedied, by washing the mouth with acids, such as vinegar, lemon, &c.

SCROFULA.

Scrofula may be properly divided into two periods, or states: the one called the scrofulous habit; the other, the disease in its state of development and activity. The scrofulous habit or predisposition may be acquired from accidental causes, or from hereditary transmission. The scrofulous habit is characterized by the following circumstances: a particular delicacy and languor of countenance; smooth, soft, and flaccid cheeks; a dull lead-coloured circle around the mouth, with fine red lips; swollen upper lip; inflammation of the eyelids; weak digestive powers; scabby eruptions about the head; irregular state of the alvine discharges; slow growth of the body; aptitude to take cold, &c. This dormant state of the disease may continue for years, or pass off, under favourable circumstances. More generally, however, it becomes gradually developed, under the influence of various exciting causes; the glands along the neck, and other parts, become enlarged, and by degrees pass into a state of slow inflammation, terminating in suppuration. The ulcers thus formed discharge a thin, milky fluid; the eyelids become inflamed, as well as the mucous membrane of the nose and bronchia. In a more advanced stage of the disease, the extremities of the bones enlarge; ulceration occurs, particularly in the cartilaginous and glandular structures; some of the bones become carious; the large joints inflame and suppurate; the spine becomes diseased; the nose and palate are destroyed by ulceration; in short, there is scarcely any part of the body, which is not sometimes affected. Scrofula occurs more frequently in children than in adults. The scrofulous habit is rarely formed after the period of manhood. The most common causes which produce this morbid habit, are: cold and atmospheric vicissitude; excessive indulgence in eating; confinement and want of exercise; mental inquietude; chronic irritation in the stomach and bowels, from worms and other causes; exposed to cold and humidity, during convalescence from various diseases; particularly measles, scarlatina, and hooping-cough; in short, whatever debilitates the system, more especially during childhood.

Treatment.—In order to counteract the scrofulous habit, great care is required to avoid the exciting causes. The digestive functions are to be maintained, and the tone of the system supported. This is to be done by the occasional use

of mild aperients; such as Seidlitz powders, senna and salts, &c.; warm clothing; mild vegetable tonics: such as sulphate of quinine, in one grain doses; or Virginia snake root, made into an infusion. When the disease exists in the lymphatic glandular tumors, leeches, and emollient poultices, are often beneficial; also the tincture iodine, and bathing with salt water. The compound extract of sarsaparilla is worthy of a trial.

POISONS.

Poisons are those substances which in small quantities, produce deleterious effects on the human body. Poisons are derived from three sources, viz., those from the animal, vegetable, and mineral kingdoms. There is a material difference in the action of poisons. Some affect the vascular system; others the nervous; while many poison both the nervous and vascular systems at the same time.

In looking at poisons from many animals, for example, we find the first action in the arterial system, while the influence of others evidently begins in the nerves. The poisons communicated by the viper and rattle-snake, attacks the arterial system first; that from the bite of a rabid animal influences the nervous system first; but ultimately, in these cases, both become affected.

Vegetable poisons operate solely on the nerves. Their effects are in proportion to the quantity taken; whereas, with morbid poisons, the quantity makes no difference in its particular specific action; but this is regulated by the peculiar condition of the patient.

The poisons which we shall notice, will be merely the animal and morbid. Under the head of animal poison, we shall speak of hydrophobia, and the bite of vipers.

HYDROPHOBIA.—This disease is the result of poison from rabid animals; and is so different in its character, so different from those arising from any of the other poisons, so marked in its nature, so horrid in its effects, that, upon seeing it, you could not hesitate to form a correct opinion as to the nature of the malady.

The first symptoms of those who have been bitten by a rabid animal, are, pain in the injured part, and this is usually felt from the third to the fifth week. The next symptom is

a sense of chilliness, succeeded by rigour and heat; then a difficulty of swallowing is felt; not of liquids in particular, but of any substance, thus arising from the construction of the muscles of the throat; and so violent are the spasms of the throat, that upon offering the patient any thing to swallow, you would think it would directly occasion suffocation. He will desist from the attempt, and tell you he will try by-and-by. Upon again applying the cup to his lips, he will be seized with the most horrid shuddering, turn away to avoid the sight of what he was about to take, and sit down in a state of exhaustion. In hydrophobia, there is evidently a great excitement of the nervous system, and it is quite erroneous to suppose that all the symptoms of the disease are produced by inflammation.

On the dissection of those who have died of hydrophobia, there has been found inflammation of the internal surface of the mucous and muscular coats of the stomach. Although the appearances, after death, confirm the previous existence of inflammation, yet they are not sufficient to account for the symptoms, and the cause certainly resides in the nervous system.

Treatment.—The best mode that can be adopted, is, immediately after the part has been bitten, to cut it out. You should at first ascertain at what depth the teeth have entered by means of a probe, and then take care to cut a sufficient quantity, and allow no part of the injured integuments to remain. If persons should foolishly object to having the poisoned part cut away, I would advise you, in such cases, to let sink into the wound a small piece of the potassa fusa; this will readily dissolve, and, becoming liquid, will soon be communicated to each part of the wound, and thus destroy the influence of the poison. As for medical remedies, when the symptoms of hydrophobia have once appeared, I am not acquainted with any that much reliance can be placed upon.

BITE OF THE VIPER.—The bite of a viper is quickly followed by severe effects, some of which are local, and others general; but it is with the former that the disorder invariably commences. At the instant of the bite, the bitten part is seized with an acute pain, which rapidly shoots over the whole limb, and even affects the viscera and internal organs. Soon afterwards, the wounded part swells and reddens; sometimes the tumefaction is confined to the circumference

of the injury; but most frequently it spreads extensively, quickly affecting every part of the limb, and even the body itself.

Treatment.—The treatment of the bite of a viper should be both local and general; for the influence of the virus is both nervous and arterial. The local treatment has for its principal object the destruction of the venom, the prevention of its entrance into the vessels, or the removal of it from the wound. You then have to soothe the local inflammation when it is severe, by bathing and poultices, and anoint the part with sweet oil. If the case require it, I should advise you to cut out the part that has been bitten, and apply a ligature above the wound, if the situation will admit of it, with a view of preventing absorption.

STINGS OF THE WASP AND HORNET.—The stings of the wasp and hornet give rise, in many cases, to very great pain and severe inflammation.

The best application, to mitigate the effects, is to take one drachm of opium, rubbed down in an ounce of olive oil; put some of this on lint, and lay it over the wound, occasionally changing it; at the same time keep the bowels open by some mild cathartic.

MILK SICKNESS.

Occurring, as the milk sickness does in the frontier settlements, where medicine as a science is in its infancy, and its practice too much in the hands of the ignorant, we have had very imperfect accounts of the affection, either as regards its history, symptoms, or means of cure.

It is a disease peculiar to the Western States, and as far south as Tennessee, and extends north to the lakes. The states of Indiana and Illinois are more subject to its occurrence; its prevalence is not confined to any season or description of weather, existing in a like degree, in the heat of summer, or cold of winter, and with like virulence and frequency, during a dry or wet season.

The animals in which it has been observed are, cattle, horses, sheep and goats, which seem to acquire it with their food or drink. The cattle may be affected with it to such a degree, as that their flesh and milk will produce the disease in man, and yet they themselves manifest no unhealthy

symptoms whatever. The disease may be discovered by subjecting the suspected animal to a violent degree of exercise by running them, and when the disease is present the animal will be seized with tremor, spasms, convulsions, or even death. This is the precaution practised by butchers in that country, always before killing a beef in any wise suspected of the poisonous contamination. The animal usually dies after repeated convulsions, never lingering beyond a few hours; often it falls suddenly, as if it received a blow from a heavy body on the head.

Cause.—The cause of this disease in animals is yet a mystery and uncertainty. No satisfactory account of its nature has ever yet been given, and it has been in turn supposed to be a vegetable, or mineral. The locality which seems to produce the disease, most commonly extends as a vein of variable breadth, traversing the country for a considerable distance. It can be traced in one instance for nearly a hundred miles, running parallel to the course of the Wabash river, in the state of Indiana. Again, it will be found to occupy an isolated spot, comprised of one hundred acres, whilst for a considerable distance around, it is not produced. Thus having the locality perfectly circumscribed, much labour has been expended in order to discover some production peculiar to the locality. The search has been uniformly unsuccessful in the attainment of its object.

The general appearance of these infected districts is somewhat peculiar. It has been always observed that the situation of the ground is elevated above that of the surrounding country, occupying what is denominated a ridge, and that the quality of the soil is in general of an inferior quality. The growth is not so luxuriant as in other places, but is scrubby and stunted in many instances; what in the West is called "barrens." Butter and cheese, made from the milk of an infected cow, are supposed to be the most concentrated forms of this poison. They possess no distinguishing appearance in odour or taste from the healthy article.

A very minute quantity of the milk, butter, or cheese, will soon develope the disease in man. The cream used in coffee drunk at a single meal, is said to have produced an attack. The butter or cheese eaten at one meal has frequently been known to prove fatal. Hundreds of persons throughout the west, and south west, are annually dying from its attacks. Owing to the want of success which has so uniformly

attended the practice of their physicians, many of the inhabitants depend entirely on their domestic remedies.

Treatment.—General bleeding is the first, and of the most importance. The extent to which it should properly be carried, can only be regulated by the pulse, and, so long as it will bear it, we should have no hesitation to continue the abstraction, being guided neither by the weight or measure. To insure its advantageous operation it must be practised early, as after the lapse of a few days, it cannot be carried to any extent from the sinking induced. If it can be avoided, we should never at any one time push it so far as to produce syncope, for reaction is always slow. Next in importance to blood-letting, is local abstractions by cups applied over the epigastrium region, but more particularly they are of service to the temples and back of the neck.

We should direct the head to be shaved in the beginning, cold applications being made and continued for some days. This, conjoined with the liberal abstraction of blood generally, and locally from the head, with cups, will be found the most certain means of allaying the excessive irritability of the stomach. Blisters may be applied early over the liver, and also to the back of the neck or to the scalp itself; their benefits will be increased by dressing them with some irritating ointment. No remedy given internally has ever yet been found to allay the irritability of the stomach.

Calomel given in five grain doses every two or three hours, combined with olive oil, has been found to be more readily retained in the stomach than other cathartics. Soon after the commencement of the use of cathartics, we should have recourse to stimulating enemata every few hours, as they frequently exert a powerful influence in hastening their operation. Even when we have succeeded in opening the bowels, and established the flow of bile, the cure of the case is not yet accomplished. The secondary fever will always follow, with a different degree of obstinacy, varying as much in duration as in the different types it assumes. Of course the treatment of this must be varied according to the symptoms which arise. Not even general directions can be given; there is now no specific action, and the intelligent practitioner will treat the symptoms as they present themselves.

TO DESTROY RATS.

Melt hogs lard in a bottle, put it in hot water, introduce into it half an ounce of phosphorus, for every pound of lard, then add a pint of proof-spirit or whiskey; cork the bottle firmly after its contents have been heated to 150 degrees, taking it at the same time out of the water, and agitate smartly till the phosphorus becomes uniformly diffused, forming a milky looking liquid. This liquid being cooled, will afford a white compound of phosphorus and lard, from which the spirit spontaneously separates, and may be poured off to be used again, for none of it enters into the combination, but it merely serves to communicate the phosphorus, and to diffuse it in very fine particles through the lard. This compound, on being warmed very gently, may be poured out into a mixture of wheat flour and sugar, incorporated therewith, and then either flavored with oil of rhodium or rosemary, or not, at pleasure. The flavour may be varied with oil of any kind to suit the fancy. This dough being made into pellets, is to be laid about near the rat holes. By its luminousness in the dark, it attracts their notice, and being agreeable to their palates, and noses, it is readily taken, and proves certainly fatal. They soon are seen issuing from their lurking places to seek for water to quench their burning thirst and bowels, and they commonly die near the water. They continue to eat it as long as it is offered to them, without being deterred by the fate of their fellows. It may be an easy guide for those who are desirous of following the prescription, and may not have a thermometer at hand, to know that a temperature of 150 degrees of Fahrenheit is equivalent to a degree of heat midway between that at which the white of an egg coagulates, and that at which white wax melts.

CHLORINE FUMIGATION.

Take Common salt,	-	-	-	-	-	2 pounds.
" Carbonate magnesia,	-	-	-	-	-	5 ounces.
" Cold water,	-	-	-	-	-	1 pound.
" Sulphuric acid,	-	-	-	-	-	1 "

Mix the salt and magnesia, and add at proper intervals the acid and water.

Used in wards of hospitals or other infected apartments, to purify the atmosphere of filthy places. The chloride of lime is also good.

ANATOMY.

ANATOMY is the art of exhibiting the structure of organized bodies, either by dissection, injection, boiling, or other modes of preparation; or the knowledge acquired by any of these means.

The importance of human anatomy as the basis of all true physiology, and of the rational exercise of physic and surgery, is now universally acknowledged. The ancients having had few opportunities of examining the structure of the human body, made comparatively little progress in the knowledge of its functions; and a few facts obtained by casual inspection of wounded patients, with some analogies gathered from the internal parts of brutes which had been killed in sacrifice or for food, constituted the sum of their anatomical knowledge. Their opinions of the functions of living animals were still more contemptible. Of the uses of the heart and arteries, the lungs, and the liver, they were totally ignorant; the grand discoveries of the circulation of the blood, the absorption of the chyle and lymph, the functions of the stomach, the liver, and the other viscera employed in digestion or nutrition, are entirely due to the skilful and patient anatomists of modern times. Of the absolute, the indispensable necessity of the most minute knowledge of anatomy to the operating surgeon, it is superfluous to speak. By the exact acquaintance which surgeons have now acquired of the relative position of the various organs, whether muscles, nerves, or blood-vessels, they are enabled successfully to perform operations, which formerly would have been regarded as utterly impracticable; and to cure diseases which in ancient times were allowed to wear out the patient in torture and putrefaction.

It is greatly to be regretted, that any obstacles or discouragements to the acquisition of anatomical knowledge should exist in any quarter. There is undoubtedly an instinctive horror at mutilating the erect form, which was so lately the residence of an intelligent and immortal spirit: and few con-

template, without the deepest anguish, the possibility of this being done to the person of those who had nourished their infancy and protected their childhood, or in whose countenance they were accustomed to discern the benevolent feelings of their heart. Yet the instincts of nature must give way to the calls of duty and necessity. They who, for the acquisition of a useful and necessary profession, devote themselves for a time to the disgusting exercise of dissection, should meet with no obstruction from those who are to benefit by their skill and attainments. If persons in the better ranks of life are afflicted with diseases which require the knife of the surgeon, they very properly demand the assistance of the best that can be procured; but they should remember that they cannot have a skilful surgeon who has not dissected many bodies. This should not be forgotten by judges, magistrates, and other persons in power, who, by the influence of their character and attainments, should temper and remove the prejudices of the people, instead of inflaming them. Every year there are numerous judicial investigations, on the result of which many lives depend. In trials for suspected murder, and in coroners' inquests, almost the whole affair depends on the evidence of medical men, who are called upon to state their opinion as to the cause of death, and who can never, with the slightest accuracy, describe what is the consequence of violence, poison, or disease in any part of the body, unless, by the frequent practice of dissection, they have been familiar with the appearance of the same part in its usual unaltered state. Some knowledge of the human body, and some information on the importance of anatomy, should be communicated in all Mechanics' Institutions, and the labouring classes should be impressed with a proper sense of the importance of good surgeons to them in particular. A rich man, when sick or disabled, can command many alleviations; but to those who must live by the strength of their limbs, and the dexterity of their hands, health and vigour are equivalent to a fortune. Sensible and well-informed masters should take proper opportunities of impressing on their workmen the utility and necessity of human dissections. When the fall of a scaffold precipitates a number of masons to the ground; when the bursting of a steam engine throws down the walls of a manufactory, and mangles many of the workmen, or scatters the destructive fragments of a vessel among the passengers and crew; when the car-

penyer or ship builder cuts an artery with his tools, nothing but the assistance of a skilful surgeon can give a chance of recovery, and preserve the life and limbs of the wounded, for the support of themselves and their dependant families. No plates, no models, no descriptions, can convey the knowledge necessary to entitle a man to make the smallest pretensions to operate on the diseased living body. There are means of supplying the materials for a surgical education, without imparting a shock to the feelings of any, and without demoralizing the character of those who are employed; and we confidently trust that the liberality and good sense of the legislature will take out of the way those obstructions to the attainment of surgical knowledge, which have been long productive, not only of inconvenience, but of profligacy and crime.

By COMPARATIVE ANATOMY, is meant the knowledge of the structure of the bodies, or of the functions of other living creatures besides man. The great functions, which are common to all living and organized beings, can be known only by the diligent cultivation of comparative anatomy. By this we see what powers or operations of nature are necessary to the existence of animal life; how respiration is performed, and how digestion; how some senses are perfect in some animals, and in others defective, but all conducive to the comfort of the animal in whom they are found. We are thus enabled to distinguish what is essential to animal life, and what is extrinsic or accidental; and in many cases, we apply to the use of man, for the cure of diseases, and the improvement of his powers, the knowledge we acquire, by observations and experiments made on the lower animals.

THE SKELETON.

The skeleton, by which is understood all the bones of the body connected together in their proper situations, is divided into the head, trunk, and extremities.

When the bones are put into a natural situation, scarcely any one of them will be found to have a perpendicular bearing on another; though the fabric composed by them is so contrived, that in an erect posture, a perpendicular line from the common centre of gravity, falls in the middle of their common base. On this account, we can support ourselves as firmly as if the axis of all the bones had been a straight

line, perpendicular to the horizon: and we have much greater quickness, ease and strength, in several of the necessary motions, as well as other advantages in the situation and protection of the viscera. It is true, indeed, that wherever the bones, on which any part of the body is sustained, decline from a straight line, the force of the muscles required to counteract the gravity is greater than would be otherwise necessary; but this is more than compensated, by the advantages above mentioned.

OF THE BONES.

The bones compose the solid frame-work of the animal body, determining its shape, containing or defending various internal organs, and forming levers, by acting upon which, the muscles effect some of the most important motions of our bodies, particularly those in which the feet, hands, arms, and legs are concerned. Bones vary in their shape, size, and texture, according to their situation and uses. They are composed chiefly of phosphate of lime, or earthy matter, and gelatine, or animal matter. The outer surface of bones is, in general, firm and compact; while inwardly they are spongy and porous, with numerous blood-vessels running through them. The most general division of bones is into the long and cylindrical, and the flat and broad. The bones of the arms, thighs and legs, belong to the first class, and those of the skull, shoulders and hips, to the latter.

The large round bones, as those of the arms and legs, have a cavity in their centre, to admit of greater lightness being combined with sufficient compactness and strength. In this cavity are contained the marrow and blood-vessels which nourish the bone. There are in the human body altogether, two hundred and forty-eight distinct bones.

At the time of birth, the bones are very imperfect, particularly those of the head; so that by being moveable in this part, and folding over each other during the time of delivery, an easier passage is procured for the infant. There are many projections from the bones, which in infancy are soft, but which in the adult state are bony; and the same tendency to the formation of bone increasing with our years, bones which were separate in the prime of life, concrete in old age. In the decay of the body, however, the bones are diminished

with the other parts, so as in extreme old age to weigh a third less than in the middle periods of life.

To far the greater number of bones, whose ends are not joined to other bones by immoveable articulation, are annexed, by the intervention of cartilage, smaller bones, called epiphyses or appendages. In young subjects these are easily separable, but in adults the points of conjunction are not very perceptible.

The bones are furnished with a tough membrane, called the periosteum, which is spread on their surface, and the principal use of which seems to be to convey blood-vessels for their nourishment; these blood-vessels are very numerous and remarkable in the bones of the infant state, but become gradually less so in the progress of life.

The ends of the long bones, where they are united to each other, are larger than their middle part, and several advantages attend this structure. By this means the surface of contact between the two bones at the joint, is increased; their conjunction consequently becomes firmer; there is more space for the connection of the muscles, which also act more powerfully, from their axis being further removed from the middle of the joint, or the centre of motion.

The *marrow*, which fills the cavities of the bones, is a fat oily substance, contained in a fine transparent membrane, which receives numerous blood-vessels, and is supported by the filaments of the reticular substance of the bones. If the different parts of a bone are observed, it is found that where the diameter of the bone is the least, there the sides are thickest and most compact; where the diameter is the greatest, which is in general towards the ends of the long bones, their structure is very cavernous throughout. The marrow pervades the whole substance of the bones, but it is most remarkable in the middle part of the cavities of the long bones. Its appearance and nature also differ in different bones, or in the same bone in the progress of life. Thus, the marrow is bloody in children, oily in adults, and thinner and more watery in aged people.

Besides dislocations and fractures, bones are liable to inflammation, to caries or rottenness, to necrosis, in which the bone dies and is replaced by a new one; to rickets, and to distortion and softening of their substance.

THE MEMBRANES.

A membrane is an expanded thin substance, lining and covering the different parts of the body. The membranes are of different kinds, varying in structure, appearance, and functions. They are named from the fluids which lubricate their free surfaces, serous, mucous, &c. The membranes are extremely liable to inflammation, which alters, if it be not speedily removed, their structure, and changes the nature of the fluids which they secrete. Most of the inflammations which occur within the body are seated in membranes.

Serous Membrane.—The serous membrane forms the envelopes of the brain, lines the thorax and abdomen, and covers nearly all the organs contained in these two cavities. It is a thin transparent membrane, its free surface being smooth and shining, of a silvery white appearance; it is constantly lubricated by a thin serous fluid, in consequence of which, it receives its name. In a state of health, it is insensible, or nearly so, and presents no trace of vessels carrying blood; but when inflamed, it becomes very sensible, and of a bright red colour. Under certain states of disease, the serous membrane pours out an increased amount of fluid from its surface, which collects in the cavities, constituting the different dropsies. Pus is also sometimes exhaled from its surface, when inflamed; it becomes likewise covered with a false membrane, which, uniting with a similar morbid production, from an adjoining portion of serous membrane, glues the two surfaces together. In this manner, the cavity of the thorax, or abdomen, has been completely obliterated, or organs are made to adhere together, which, in a healthy state, have no connection with each other.

Mucous Membrane.—The mucous membrane lines the nostrils, mouth, windpipe, and bronchia, the alimentary canal, bladder, and various other cavities. It is called mucous, from the circumstance of its being constantly covered on its free surface, during health, with a mucous, or a slimy fluid. The structure and general character of this membrane are the same wherever it is situated. Its free surface has a velvety or spongy appearance; every where it is covered with small eminences or depression, from which exudes the mucus which lubricates it. It is plentifully supplied with blood-vessels, nerves and lymphatics, which are so intimately combined with the membrane, that they seem to form the greater

part of its substance. During health, the mucous membrane has more or less of a rose colour; when inflamed, it becomes entirely red, and secretes, according to the degree or stage of the inflammation, a thin watery fluid, a thick yellow mucus, or pus. Sometimes it pours out large quantities of blood, or its surface becomes covered with a false membrane. This membrane is thickened by inflammation, but its surfaces, which are in contact with each other, never adhere.

THE MUSCLES.

The muscles are the organs which change, regulate, and fix the positions and attitudes of the body, and which are directly or indirectly concerned in all the more conspicuous motions of the solids and fluids. In these numerous and important operations, they exhibit phenomena peculiar to themselves, and which cannot be traced to gravity or impulse, to elasticity or to chemical attraction. They produce their effect, whether it be a state of motion or rest, by contracting their fibres in consequence of stimulants; while the stimulants, whether chemical, mechanical, or vital, seem to act through the medium of a nervous energy.

They are not restricted to any length, breadth, or thickness; to any form, magnitude, or colour; though every one belonging to a pair resembles its fellow. They are not formed of any one homogeneous substance, but composed of carneous and tendinous fibres, interspersed every where with cellular membrane, and the ramifications of arteries, veins, absorbents, and nerves, all of them alive, and all of them irritable.

The carneous fibres constitute flesh. They seldom or never appear single, but are collected into small fasciculi, or bundles, that unite to form larger ones; which larger fasciculi being united, form the collections which, with their tendinous fibres, &c., we call muscles, and which we distinguish by proper names.

The carneous fibres are all sensible to stimulants of one kind or another; and being the only parts that contract in obedience to the will, or in consequence of stimulants operating regularly, they constitute the distinguishing character of muscles. As they derive their principal power from a vital source, the change produced upon them by death, is sudden and obvious. Hence the muscles, that, when living,

could have ruptured their tendons, luxated the bones, or broken them to pieces, can scarcely, when dead, if it were not for their tendons, their cellular membrane, and the ramifications of the blood and absorbent vessels, support their own weight. In the living state, it is obvious, however, that their strength must vary, and in a great measure depend on the nature and degree of the energy communicated. In the voluntary muscles, that energy, to a certain extent, is varied at pleasure. Yet the influence of the will is nothing, compared to the influence of instinct, emotion, and passion, to which the will is frequently subservient. These often affect the whole of the muscles, and, through their medium, alter the secretions. It is this connexion between muscular action and the vital powers, that explains how our muscular strength is varied by the states of sickness and health; and how our exertions are more or less vigorous and extensive, continued for a longer or a shorter period, and attended with greater or with less fatigue, in proportion as the mind happens to be influenced by the exhilarating or depressing passions.

Of the ultimate fibres composing a muscle, of their connexion with contiguous fibres, of their form, their structure, and that series of processes occasioning their contraction, much has been said, conjectured, and reasoned; but nothing of importance has been added to our stock of authentic information.

THE STOMACH.

The stomach is a membranous sac, in form, when distended, not unlike a bagpipe. The stomach is much larger towards the left side than towards the right. It has two orifices, one towards the left side, where the esophagus or gullet enters, called the cardia, and another towards the right, called the pylorus, which opens into the intestines. The great extremity of the stomach is situated in the left side of the abdomen, and for the most part immediately under the diaphragm; the left orifice is almost opposite to, and very near the middle of the bodies of the lowest vertebræ of the back. The small extremity of the stomach does not reach fully to the right side of the abdomen; it bends obliquely backward towards the other orifice; so that the pylorus lies about two fingers' breadth from the body of the vertebræ, immediately under a small portion of the liver, and conse-

quently lower down and more forward than the cardia. The stomach is connected to the omentum, and by means of the omentum, on the left side, to the spleen.

The orifices of the stomach are placed in the recesses on each side of the spine, to which the body of the stomach is close applied so as in a manner to be bent round it. The orifices of the stomach are therefore placed further back than its body, and also a little higher, though when the stomach is distended, its body rises nearly to a level with its orifices. The body of the stomach is distinguished into two curvatures; the concave surface, which is applied around the spine, is called the lesser curvature, and that which is convex, and is turned forwards and downwards, the greater.

The stomach is formed of three coats. The external of these is the peritoneal; the second is muscular, and is formed of fibres, variously distributed around the stomach; some run down each side of the stomach longitudinally, other circular fibres surround the stomach, and refuse egress to such matters as are not fitted to undergo the next changes in the process of digestion. Thus, ill masticated and indigestible food, coins, stones of fruit, and the like, are not suffered at once to pass from the stomach into the intestines.

The pylorus is subject to alteration of structure, ending in cancer, and giving rise to very painful and distressing symptoms.

Gastric Juice.—The fluid secreted by the exhalant arteries of the stomach. Until a very late period, the gastric juice was supposed to act upon the aliment taken into the stomach, as a powerful solvent, and in this manner to effect its digestion. To prove this, attempts have been made to cause the digestion of various articles of food, by submitting them to the action of the gastric juice out of the stomach; and, in these experiments, it has been found that the food does undergo a certain degree of softening; but the product of these artificial digestions, has never been proved by chemical analysis to be chyme. Nor is it probable, that a process which is so intimately dependant upon the health and vigour of the stomach, as digestion, and which causes the food to undergo an actual change in its chemical properties, can be effected by the action merely of a solvent fluid. All the office we are permitted to ascribe to the latter, is that of preparing the aliment for the action of the stomach itself; an office which it shares with the teeth and saliva. The gastric

juice, when obtained after a long fast, is a clear, ropy, faintly opaque fluid, entirely destitute of acidity; but when food, or any stimulus, even the simplest kind, is applied to the inner coat of the stomach, the gastric juice then becomes uniformly acid, and the degree of acidity is in proportion to the amount of the stimulus applied. The acidity is derived from the presence of free acetic, and probably hydrochloric (muriatic) acids.

THE HEART.

The heart of man, and of the more perfect animals, is composed of two parts, one of which is destined to propel the blood into the lungs, and the other to distribute it to the system at large. The heart is contained within the *pericardium*, a strong membranous bag, smooth, and lubricated by fluid on the inside, having its inner lamina reflected over the heart itself. The heart is situated obliquely in the middle of the breast, its posterior surface is flat, and lies upon the diaphragm: its apex is turned forwards, and towards the left side, so that, in the living body, it is felt striking between the fifth and sixth ribs, a little towards the left side of the breast bone. The pulmonic part of the heart is composed of an *auricle* and a *ventricle*. The auricle is a muscular bag, very thin, and having a dark appearance, from the blood shining through its coats. Into this cavity, the two large veins, which have collected the blood from the upper and lower parts of the body, empty themselves; the auricle contracting sends the blood into the right ventricle, which propels it through the pulmonary artery into the lungs. There circulating in innumerable vessels, and exposed to the influence of the air we breathe, the dark purple blood is changed to a bright scarlet colour, loses the noxious properties it acquires by flowing through the system, and becomes again fitted to circulate as before. The blood proceeds from the lungs by four vessels into the *left* auricle, which, like its fellow, is a muscular bag that contracts and sends the blood into the left ventricle, by which it is sent into the aorta, and by its branches throughout the body. To prevent the blood from regurgitating, and to keep it flowing in the proper direction, both the auricles are furnished with valves, or little membranous folds, which allow the blood to pass one way, but are accurately closed when any of it attempts to pass in the op-

posite. At the mouths of the pulmonary artery and of the aorta, there are also valves, for the same purpose. The valves of the right auricle are called the tricuspid valves, those of the left the mitral; those at the beginning of the arteries are called semilunar valves, which forces the blood into the auricles, and the returning blood, they throw into the ventricles; which, when they are filled, throw the blood into their respective arteries. The contractions are called the systole, and the dilatations, the diastole of the heart. The beating of the pulse corresponds with the force and frequency of the movements of the heart. This astonishing organ contracts and dilates upwards of a hundred thousand times in a day, and can continue its action unimpaired and unwearied for seventy or eighty years.

THE BLOOD.

A red fluid, of a saltish taste, and urinous smell, which circulates in the heart, arteries, and veins. The blood is a most important fluid in the animal body. It furnishes the materials from which the various parts of the body are furnished with nourishment; it is the fluid from which the secretions are formed; it is the source of animal heat; it stimulates the heart to contraction, and by its presence in the blood-vessels, it distends them, and gives plumpness to the body; and by shining through the transparent skin, causes the fine complexion, and the shades of colour, which impart so much beauty and interest to the healthy human countenance.

Many calculations have been formed of the total quantity of blood in the body; but as the data upon which they have proceeded are extremely uncertain, so the conclusions have been widely different, and, of course, the greatest part of them remote from the truth. Perhaps, upon the whole, the estimate, which would seem the nearest approximation, is that of Haller, who supposes that the blood may constitute about one-fifth of the weight of the adult body, the proportion of the fluids being greater in youth, and diminishing as age advances. A body weighing one hundred and fifty pounds, would, therefore, contain about thirty pounds of blood, and of this, it is supposed, that three-fourths or more are in the veins, and one-fourth only in the arteries.

The blood in one portion of the heart is of a bright,

red colour, and is driven by the contraction of this powerful organ into the arteries. When the red blood has reached the extremities of the arteries, it is conveyed into veins, by which it is brought back to the heart. The blood in the veins differs in colour from that in the arteries; it is now dark coloured, and incapable of furnishing materials for nourishment or secretion, with the remarkable exception of the venous blood from the intestines, which, circulating through the liver, is employed in the secretion of bile. The blood which has circulated through the body, and been employed in secretion, is unfit for performing a second time the same functions; and in order to repair its salutary powers, and be again rendered fit for the purposes of the animal economy, it passes through the lungs; in which organs, by the action of the air, it loses its dark venous colour and injurious properties, and again is fitted, in the state of florid arterial blood, to impart life and vigour to the animal system.

Blood, when it is first drawn from the body, appears a uniform fluid; but by being allowed to rest, it spontaneously separates into two parts, viz., the *crassamentum*, or cake, and the *serum*, or watery part, besides a vapour which exhales when the blood is warm at its first drawing off. The *crassamentum* is thick, and like jelly; it soon becomes putrid; it is insoluble in water. The surface of the *crassamentum*, exposed to the air, is of a more florid colour than that which is deeper in the dish, and not exposed to the air. The red globules may be washed away, and they leave what is called the fibrine of the blood. The other part of the blood is the serum, a lymphatic, or watery fluid, with little smell, saltish to the taste, of a yellowish green colour. When blood is drawn from the body, while under the influence of inflammatory disease, the *crassamentum* is covered with a tough, leather-looking surface, of various depths, from the thickness of a shilling to a quarter of an inch, known by the name of the *buffy coat*. The appearance of this buffy coat, in conjunction with other circumstances, gives a very good indication of the inflammatory state of the system. Sometimes this appears cupped in the middle, drawing the upper part of the *crassamentum* from the sides towards the centre. The blood frequently puts on a similar crust in the state of pregnancy.

THE BRAIN.

The important organ contained within the skull constituting the material instrument by which the mind acts, and is acted upon. It is, in other words, the exclusive seat of the powers of perception and volition, and of the intellectual faculties. The human brain is divided into *cerebrum*, or brain proper; the *cerebellum*, or lesser brain, and the *medulla oblongata*, or commencement of the spinal marrow. Besides the bones of the skull, the brain has a covering composed of three membranes, an external one which is very firm, and of a bright silvery appearance, termed the *dura mater*; an internal thinner and very vascular one, named *pia mater*, and between these is interposed the fine delicate membrane, denominated *tunica arachnoides*. The brain consists of a large pulpy mass, externally formed into numerous waved or convoluted furrows, being of a light reddish colour near the surface, but internally of a whitish or cream colour. It contains several cavities, and its substance is amply supplied with numerous small blood-vessels. The internal structure of the brain has been accurately studied, and minutely described by anatomists; but still these descriptions throw but little light upon the nature of its functions. The *cerebrum* constitutes the uppermost and anterior portion of the brain, beneath which, posteriorly, is situated the *cerebellum*; from the former it is separated by a strong transverse membrane, called the tentorium. In man, the cerebrum is much larger than in any other animal, in proportion to the cerebellum, which, in the lower animals, has always the preponderance. The cerebrum is now very generally conceded to be the organ of the intellectual and moral faculties. It is divided into two hemispheres or lateral portions, by a doubling of the *dura mater*, which, from its resemblance to a scythe, has been called the falciform process. Both hemispheres are identical in their structure and functions. The cerebellum is the organ of the passions, appetites and propensities; it is also composed of two parts, or lateral lobes. On the inferior part of the brain, commencing near its centre, and projecting backwards, between the lobes of the cerebellum, is situated the *medulla oblongata*. Both the cerebrum and cerebellum are connected with the medulla oblongata, and through it with each other. The connection between the

brain and the organs of sense, and the other parts of the system, is maintained through the medium of the nerves and the spinal marrow. The nerves of the organs of sight, smell, hearing and taste, together with the great sympathetic, which gives branches to the stomach, heart, lungs, and other important viscera, are the nerves which proceed directly from the brain.

The principal disorders to which the brain and its membranes are liable, are concussion, compression from external injury, inflammation and suppuration, accumulation of water in the ventricles, constituting dropsy, apoplexy, and various morbid growths.

THE NERVES.

Nerves are whitish cords, of various thickness, which are found distributed to every part of the system. Every nerve that has yet been discovered in an animal body regularly formed, has proceeded directly or indirectly from a brain, a little brain, or a spinal marrow. The nerves distributed to the organs of sense and voluntary motion are, compared to the parts on which they ramify, proportionally the largest in the whole system. Any of the trunks of the nerves of the arm, are larger than the middle or great sympathetics, that supply the viscera of the thorax and abdomen; and the branches, at the points of the fingers, are larger than those which are seen entering the basis of the heart. All nerves have been divided into those which are sensible or insensible, voluntary or involuntary; the *sensible* being those which obviously and suddenly communicate intelligence to the vital principle, of the injuries or changes that take place in the system, or of the impressions that are made from without; the *insensible*, those which perform their observations obscurely and secretly, unknown to the senses, and without in general awakening our consciousness; the *voluntary*, those which are either subservient, or at least partly subservient, to the will; the *involuntary*, those, whose functions are obvious to the senses, but on which the will has no direct or immediate influence. The sensible nerves grow often insensible, and the voluntary nerves often involuntary, in consequence of palsy; while insensible nerves, on the other hand, are often observed to become sensible from the diseased state of the parts on which they ramify. Voluntary nerves, though

generally sensible, do not appear to be necessarily so. Involuntary nerves, although exempted from any direct influence of the will, are seldom exempted from the effects of fear, of anger, or any of the violent mental emotions which affect indiscriminately both the voluntary and involuntary nerves. We see the nerves not immediately subjected to the influence of the will, distinguished not only by a proportionally smaller size, but likewise by certain swellings or knots that are named *ganglions*; and as all these nerves are subservient to functions that are constant and uniform, it has been supposed that these ganglions are both reservoirs and sources of the nervous energy; and that by affording a regular supply, and resisting those occasional commotions excited by volition, they are calculated to preserve that uniformity in point of function, by which the involuntary nerves are distinguished.

Nerves also form *plexuses* or net-works, whose use is less obscure than that of the ganglions. In the large plexuses formed by the nerves of the superior and inferior extremities, we see a number of communicating branches passing between one trunk and another; and which, like the inosculating branches of blood-vessels, contribute to secure a more regular supply of that sort of energy which nerves convey to the different parts on which they are ramified. Physiologists are accustomed to trace particular connexions among the organs that, distant or near, derive their nerves, not merely from the same ganglions or plexuses, but the same trunks, or the contiguous corresponding parts of the brain and its prolongation. It is thus they explain the sympathy between the eyes and the nose, when a strong light impinges on the one, or a pungent odour is applied to the other.

The accurate researches of modern anatomists have made considerable additions to our knowledge of the nerves. It has been discovered, that what is commonly called a nerve, may contain in one sheath nervous filaments possessed of very different properties, some conveying sensations from the external world, or the surface of the body, to the brain; others transmitting muscular motion by volition, to the external organs. Thus, in a part of the body, as the face, the sensation may be entire, while the muscles are paralyzed, or the reverse may take place, the motions being perfect, but the sensibility gone. Hence many anomalous symptoms are explained; and paralytic affections which were formerly

thought to indicate great derangement of the brain, are now easily traced to a tumor pressing upon a particular nerve, and very bad symptoms disappear from the spontaneous cure of the tumor, or by an easy surgical operation.

THE INTESTINES.

By the intestines is meant the whole of the alimentary canal below the stomach. They are divided into the small and large. The small intestines are subdivided into the duodenum, the jejunum, and the ileum. The large into the cœcum, the colon, and the rectum. All the intestines, except some part of the duodenum, are surrounded and supported by the mesentery. In man, the length of the intestines is about six times that of the body, but in graminivorous quadrupeds, their length, in proportion to that of the body, is much greater.

The small intestines fill the middle and fore parts of the abdomen, while the large fill the upper and under parts, as well as the sides of that cavity.

Small Intestines.—The small intestines, in general, are of a cylindrical form. They are composed of four coats, the structure of which is similar, and which bear the same names as those of the stomach. The mucous coat of the small intestines is very extensive, and forms, together with the cellular substance beneath it, a vast number of red semilunar folds or wrinkles, which serve to increase remarkably the internal surface of the intestines, and of course to expose the aliment more fully to the mouths of the lacteals.

The small intestines assist in the preparation of the chyle, and propel their contents towards the great intestines.

With respect to the small intestines in particular, several circumstances are to be noticed. The *duodenum*, so named from its being about twelve inches in length, differs from the others in not being entirely surrounded by the peritoneal coat. The duodenum, beginning from the stomach, first runs towards the right side downwards, and rather backwards; then it bends towards the right kidney, to which it is slightly connected, and thence passes obliquely across the abdomen, ascending gradually from right to left, till it gets before the last vertebræ of the back. It continues its course obliquely forwards, by a gentle turn, and then terminates in the jejunum. Through this whole course the duodenum is

firmly bound down and concealed by folds of the peritoneum. About six inches from the pylorus, the common bile duct, and the duct from the pancreas, pour their contents together into the duodenum.

Of the remaining part of the small intestines, two-fifths are called the *jejunum*, or empty gut, and the remaining three-fifths the *ileum*; between them no striking line of distinction can be pointed out. The *jejunum* is placed more about the umbilical region; the *ileum* more in the hypogastric. The small intestines at length terminate in the large, in the hollow of the right iliac, or haunch bone, below the kidney. At this place there is a valve, which exhibits the appearance of a slit or chink. This valve permits a free passage from the small intestines into the large, but prevents any thing from passing readily from the large into the small.

Large Intestines.—The *cæcum*, which forms the beginning of the great intestines, may be considered as a production of the colon expanded into a bag. It is about four fingers in length, and as many in breadth. It is situated in the right iliac region, and rests on the broad part of the haunch bone. At its lower part, it has a long small projection, called vermiform, from its resemblance to an earth worm. Under the name of *colon*, is comprehended almost the whole of the great intestines. The colon begins in the right iliac region, and is attached to the kidney; thence it rises as high as the stomach and the liver. It now runs transversely before the stomach to the left side, is connected to the spleen and kidney, descends into the left iliac region, and being there bent in the form of the letter S, it terminates in the rectum. The structure of the colon is similar that of the small intestines.

Along the whole course of the colon are a number of cells formed by circular contractions of the intestine, which serve to retard the progress of its contents.

Along the whole course of the large intestines we also observe small projections of a fatty substance, contained in elongations of the common coat.

The *rectum*, which is a continuation of the colon, begins at the lowest vertebra of the loins. It is bent along the internal surface of the sacrum and coccygis, to which it is closely applied, and terminates at the anus.

PHRENOLOGY.

The word phrenology signifies a discourse on the brain; it is applied to designate the doctrines advanced by Gall and Spurzheim in relation to the structure and functions of the brain. According to these gentlemen, the brain is not a single organ, but a collection of organs, each one destined to perform a particular function. The mental faculties they divide into those of the *feelings*, and those of the *intellect*. The first are subdivided into *propensities* and *sentiments*. The second, or intellectual faculties, they divide into the *knowing* and *reflecting*. The propensities do not give origin to ideas, they merely produce sensations of a kind peculiar to each. They are common to man and other animals. They are *amativeness*—the propensity to physical love; *philo-progenitiveness*—the instinctive love of offspring; *concentrativeness*, the function by which the mind maintains two or more powers in simultaneous action, and determines the individual to fixedness of location and purpose; *adhesiveness*, the instinctive attachment for surrounding objects, whether animate or not—it disposes to friendship and society; *combaticiveness*, instinctive desire to combat; it manifests itself by anger and rage; *constructiveness*, instinctive tendency to construct; in man, directed, by the predominance of other faculties in different individuals, to various objects; in the lower animals, to form their burrows, dens, or nests; *acquisitiveness*, instinctive tendency to acquire and possess; the love of property and wealth is founded on it; its predominance causes avarice; *secretiveness*, instinctive tendency to conceal the thoughts, desires and emotions of the mind, until the understanding has decided upon their fitness and probable consequences; when properly balanced by other organs, it produces prudence; when it predominates, it causes slyness and cunning. The *sentiments* are mere emotions, or tendencies to emotion, they produce no ideas, many of them are possessed by other animals as well as man, some are peculiar to the latter. The first are *self-esteem*—*love of approbation*—*cautiousness*, and *benevolence*, which are fully indicated by their names. Those peculiar to man, are *veneration*—*hope*—*ideality*, or the faculty of the mind which causes in individuals a desire for something more perfect than what ordinarily presents itself, which inspires them with enthusiasm and

exaggeration, and prompts to embellishment and splendour of conception—*wonder*, the sentiment of the marvellous, or *marvellousness*, proneness to belief in mysterious incidents, ghosts, sorcery and witchcraft; *conscientiousness* and *firmness*. The organs upon whose functions the sentiments and propensities just enumerated depend, are situated in the posterior and inferior portion of the brain; the organs of the intellectual faculties now to be enumerated, are seated in the anterior and upper part of the brain. They are *eventuality*, or the desire and ability to know facts and things; *form*, the faculty of judging of form; *size*, the faculty of judging of magnitude—*weight*—*colouring*—*locality*, the faculty of remembering and recognizing places; *order*—*time*—*number*—*tune*—*language*—*comparison*—*casualty*—*wit*—*imitation*. The greater the development of the individual organs, the more powerful the propensity, sentiment, or intellectual faculty, to which they are destined, becomes. The development of the organs is caused by their frequent exercise. The predominance of one or more of the mental organs, stamps the peculiar moral or intellectual character of the individual. Of course, the foregoing is a very superficial sketch of the leading propositions; the explanation and application of which constitute the doctrines of phrenology; sufficient, however, has been said to give the reader a general idea of that science.

MATERIA MEDICA.

THE USE OF MEDICINES.

MEDICINES are those substances introduced into the stomach, with the intention of producing certain effects, for the cure of disease, or the preservation of health. Substances applied externally are more generally termed applications, or remedies. Medicines are obtained from all the various kingdoms of nature, and are used either simply or combined together. Their doses are to be regulated according to the circumstances of each individual, with respect to age, sex, temperament, strength, peculiarity of constitution, &c. The doses of medicine for children under twelve, are to be diminished to one-seventh, one-fifth, one-fourth, and one-half; at two years, four, six, eight, and upwards; from sixteen, in general, the full dose may be given. Some medicines—as calomel—do not make the same impression on children as on adults, and therefore are not to be diminished so much. Women in general require smaller doses than men; but of purgative medicines, many require a good deal more. When a person has been accustomed to a medicine, he in general loses his susceptibility of being moved by it; but some medicines appear to have their action more easily excited by habit. When a person has been weakened by the long duration of a disease, medicines must be ordered in smaller doses than at the commencement of it. Some medicines only act more certainly when given in large doses, but not more violently; this is the case with ipecacuanha. Medicines vary in their activity, and this must be taken into the account when a fresh parcel of such medicines is commenced with; thus, if we are giving foxglove, it will be right to begin with a diminished dose of the new portion. The effects of some medicines seem to accumulate in the system. This is remarkable of foxglove, and sometimes of mercury; we must not, therefore, always continue to give the medicine till we have some proof of its entering the constitution. Some per-

sons have very remarkable peculiarities with respect to the operation of certain medicines. When this can be known beforehand, we of course avoid the use of these medicines with such patients.

Times of Administering Medicines.—There are certain times of the day more convenient than others for giving some medicines. Purgative medicines should be given late at night, or early in the morning. The bowels are not so easily acted upon during the time of sleep; and hence pills, and other medicines which do not act speedily, have time to dissolve fully, and to produce their due effect on the bowels. Saline purgatives are best given in the day time, that the cooler state of the surface may determine their action to the kidneys. Emetics, in slight feverish disorders, are best given in the evening, as they produce tendency to sleep and perspiration, which are best encouraged by retiring to bed. Medicine for perspiration should not be given during the process of digestion.

ANODYNES.

Anodynes are medicines which relieve pain. Another name by which they are known is *narcotics*, from a Greek word, which signifies stupor, which may be considered as the general term; and the various narcotics have received specific names according to the effects most strikingly produced by them. If they induce sleep, they are called *hypnotics*, or *soporifics*. If they diminish the rapidity of the circulation, or the activity of the general system, they are called *sedatives*; and from the circumstance of their being used to diminish the sensibility of pain, they are called *anodynes*. The substances possessed of narcotic, and, therefore, of anodyne properties, are very numerous. The following are some of them:—opium, henbane, hemlock, camphor, foxglove, tobacco, and stramonium. Of these, one of the most useful is opium, in some of its various shapes.

Great care must be taken not to give anodynes from the mere circumstance of pains being felt. A person has an acute pain of the side, from inflammation of the lungs, or of the bowels. In such cases, the true anodyne is a large bleeding; and a dose of opium given on such occasions, would be destructive of life.

ANTIEMETICS.

Antiemetics are medicines which have the effect of suspending vomiting, or removing sickness of the stomach. The irritability of the stomach, by which nausea and vomiting are produced, in very many cases, can only be removed by such remedies as are adapted to restore the organ to health. Hence bleeding, leeches to the stomach, perfect rest, and small portions of iced water, or even ice itself, are often the only antiemetics which can be employed or depended upon. When, however, inflammation of the stomach is not present, vomiting will often be suspended by small doses of magnesia—by the effervescing mixture; tablespoonful doses of lime water and milk; a weak infusion of serpentaria, taken cold; cold toast water, or by a mustard poultice, or blister to the pit of the stomach. When vomiting depends upon the presence of some irritating substance in the stomach, as bile, indigested food, or the like, drinking plentifully of warm water, or of a weak infusion of camomile flowers, will aid in removing the cause, and in that manner suspend the vomiting.

ANTIPHLOGISTICS.

All remedies which have the power of reducing the increased action of the heart, and morbid heat of the skin in fevers, and of curing local inflammations, are termed *antiphlogistic* regimen, under which are included all the rules, prohibitions, and observances, which are prescribed in cases of fever, inflammation, and diseases of excitement. These directions, viewed by themselves, may appear minute, trifling, and beneath the dignity of science; but taken together, they form a plan of acting, of which the best recommendation is the safety attending its observance, and the fatal results which ensue when it is rashly, obstinately, or secretly disregarded. The enlightened and upright practitioner does not perplex his patient with the volubility of medical phrases which he cannot understand, nor does he needlessly pour in quantities of nauseous drugs. He knows that in many things the patient must administer to himself, and in many, the good sense of his attendants must ward off the mischief arising from surrounding circumstances of incessant occurrence. The antiphlogistic regimen consists in the removal or non-application of whatever would greatly or unnecessarily employ the

powers of either the body or mind. To illustrate what is meant, let us take the case of a patient in fever, or in pleurisy. The medical attendant will, of course, when first called, use the proper remedies; as blood-letting, purging, and determining to the skin; but he will do comparatively little for his patient's recovery, if his directions for his after-management are not precise, and accurately attended to. The air of the apartment must be kept pure and temperate; there ought to be no unnecessary attendants in the room; fresh air should be admitted from time to time, by cautious opening of the doors and windows; and all evacuation from the body should be quickly removed from the apartment; there should be no glare of light from the sun, or fire, or candles; the room should be darkened, and the curtains, or at least those next the windows, should generally be closed. No talking or whispering should be kept up in the room; the noise of carts or carriages in the street should be diminished by straw or oak bark; or, where this is impracticable, the ears should be slightly stopped with cotton or wool. The regulation of the diet, and of the drink, is of primary importance; and it is here that physicians have the greatest difficulties to encounter. The friends of the patient tell with real concern that he has taken no food for many days; that he must be very weak, and that he surely can never get through if he be kept so low; they do not consider the salutary instinct of nature in loathing the food which the stomach cannot digest; and they venture to give what they think very nourishing, in the shape of beef tea or chicken broth. The physician, at his next visit, finds the fever still high, the pulse full and strong, the thirst urgent, and the face flushed; he suspects, or obtains a confession of, the imprudence which has been committed, and is obliged again to bleed largely, to counteract or repair the mischief. When nourishment is allowed at all, it should be of the mildest kind, and such as does not heat or stimulate the body: as thin gruel, or panada, sago, rice, or arrow root. Equally alarming and destructive events follow from too strong drinks. However general among the ignorant, may be the hateful practice of using spirits on all occasions, and their faith in the mysterious virtues of wine, it is to be hoped that few among the well-informed and educated classes would venture on strong drink in any illness, without the express order of the physician; but even here, injury is sometimes done, espe-

cially in the inflammatory diseases of childbed, by the ignorance or officiousness of nurses and servants. The drink should be of the mildest sort—neither too hot nor too cold; though it is, in many cases, very proper to allow the patient cold water, for which he often has instinctively a strong and not unsafe desire. The drinks proper in inflammatory diseases, are toast water, barley water, water gruel, various preserves of fruit, dissolved in water: as strawberry jam, raspberry jam, &c.; whey of milk, vinegar and water, sulphuric acid, largely diluted with water, water from cream of tartar, lemonade, and the like. Much irritation will be prevented by frequent changes of linen and bed clothes. Much of the antiphlogistic regimen is to be directed to the mind. Every source of uneasiness and anxiety must be avoided; there must be no talking of business, no hasty or unguarded narratives introduced, no exhibition of distress and hurry, of alarm, or mystery, in the faces of friends or attendants. Every thing should be done for the patient's comfort, with calmness and good sense; and while we cannot sanction any deceiving of his mind with regard to his situation when there is real danger, we consider it of great importance to give him no unnecessary agitation, by the imprudence of those around him, or by representing things as worse than they really are.

ANTISCORBUTICS,

Are medicines which prevent or cure the scurvy. The chief of these are fresh vegetables, and nourishing food generally, as acid fruits, vinegar, lime and lemon juice; sorrel, pure dry air, proper clothing, daily active exercise, and such pursuits as have a tendency to promote a cheerful disposition of mind.

ANTISPAMODICS,

Are medicines generally to relieve spasm, or irregular and painful action of muscles, or muscular fibre. Antispasmodics, properly so called, are given rather to put an end to a fit, or sudden attack of painful convulsions, than to cure the disease itself. A patient is seized with a fit, and to put a stop to the fit, we administer to him hartshorn or camphor; but this will not cure the disease, or prevent its return; we must try to discover its cause, whether it proceeds from

worms, from dentition, or from a wound; and we must direct our after practice accordingly. Antispasmodics are useful in cramp of the stomach, in griping pains of the bowels, asthma, hysterics, and some other sudden and violent affections not connected with inflammation. In griping of the bowels, it is the practice among the ignorant, to trust to the antispasmodic powers of ardent spirits, either alone or in a toddy; but the possibility of the pain being the symptom of inflammation, should, in every instance, deter from this expedient. If the pain arise merely from spasm or flatulence, a cup full of warm water will be a far better remedy. Frequently, cold water suddenly applied to some part of the body, relieve the spasm there, or even in distant parts. Thus the cramp in the leg is stopped by cold applied to the foot. Sometimes the warm bath relieves spasm, sometimes blood-letting does it. It appears then, that whatever makes a strong or sudden impression on the nervous system, is to be regarded as an antispasmodic; but the medicines which commonly go under that name, and produce a sudden relaxation of the spasms are, musk, castor oil, ammonia, assafoetida, valerian, opium, ether, and camphor.

ASTRINGENTS.

Astringents are those remedies which, when applied to the body, under the solids, dense, and firmer, by contracting the fibres, independently of their nervous or muscular power. They thus serve to diminish excessive discharges; and by causing greater compression of the nervous fibrillæ, may probably lessen morbid sensibility or irritability. Hence, they may tend indirectly to restore the strength when impaired by these causes. Most astringents impart a peculiar harshness and roughness to the tongue and palate when tasted. The chief astringents are alum, sugar of lead, catechu, oak bark, galls, kino, lime water, logwood, uva-ursi, and the mineral acid diluted. Cold, also, appears to act as an astringent. Astringents are principally employed to arrest profuse discharges of blood and mucus, and to check the inordinate action of the bowels. In certain cases of local inflammation, externally seated, astringent washes are also beneficial. Their internal use requires a very great degree of judgment; improperly resorted to, they very often are the cause of no little mischief.

BLOOD-LETTING.

Blood-letting signifies the taking away of blood by artificial means, and is either general or local. General blood-letting is performed by the opening of veins or arteries by the lancet; and local blood-letting by the application of leeches or cupping-glasses. The great power of blood-letting in the cure of diseases cannot be quite satisfactorily explained. Even in pretty large bleedings, the quantity taken away does not bear a great proportion to the whole of the circulation or mass; and blood-letting seems to do good principally by somehow altering that excited state of the system which occurs in robust constitutions, and which is marked by a full, strong pulse, and a florid look, with firmness and activity of the muscular system. This excited state, pushed a little farther, passes into inflammation, general or local. When the fulness of the vessels is taken off by blood-letting, their coats contract less strongly, and the excited action is lowered. Blood-letting seems to have great effect by its action on the nervous system, as we see in the fainting which is brought on in many cases by a very small bleeding. The taking away of blood, in whatever way it acts, is ascertained by long and universal experience to be one of our most powerful remedies. The particular cases to which blood-letting is applicable, may be considered as ranking under the heads of diseases of excitement, of fulness, and those which arise from tension and irritation. Blood-letting is useful in the following diseases:—1. *Fever*.—As there are fevers of various kinds, and as the same disease in different stages presents various symptoms, the remedies which would be useful at one period, and in one kind of fever, would be destructive when circumstances are altered. To no remedy is this remark more applicable than to blood-letting. At one time it may be the means of a perfect cure; at others it may occasion a waste of the vital powers which cannot be repaired. It therefore requires much discrimination to determine the kinds of fever, and the periods of disease in which it is proper, and to guard lest bad consequences follow the loss of blood. In inflammatory fever, where there is a strong, quick, and full pulse, much flushing of the face, throbbing at the temples, delirium, thirst, and heat of the skin, we should not hesitate to bleed largely. There is a disease well known

to the people by the name of Typhus Fever, where the pulse is small, weak, and fluttering, the tongue black, the skin dry, the patient delirious and insensible; in this fever, or to speak more correctly, at this stage of the fever, it would be insanity to bleed largely. But whatever may be the danger of bleeding at that stage of the disease, or however the physicians of forty years ago would have shuddered at the thought of bleeding a patient in Typhus, it is well known that this disease often begins with symptoms of high excitement; and there is reason to believe that the blood is irregularly distributed and accumulated in certain organs. At this early period, blood-letting is one of the most effectual remedies we can employ; and when prudently and moderately employed, it prevents the sinking strength which frequently succeeds to high excitement when too long continued. Much caution is requisite not to bleed too often, nor when the disease has continued for several days; as this would have a tendency to bring on a dangerous and fatal sinking of the strength, or the true typhoid state. Against inflammation of every organ, blood-letting is the chief, and almost infallible remedy. Other auxiliaries have been found, but our main reliance is upon blood-letting. In acute rheumatism, or what is properly called a rheumatic fever, it is generally proper to begin our treatment by a pretty free discharge of blood; and it is vain to expect success from the sweating practice, unless the high action of the vascular system be first reduced by this or other means. There are certain states of the system in which, after a period of what is called high health, feverish symptoms come on; and then a discharge of blood, generally clear and florid, spontaneously takes place from some part of the body. Thus we have bleeding at the nose, spitting of blood, or a discharge of blood by stool, or urine. Such discharges of blood are called *active hemorrhages*; and, however paradoxical it may appear to cure a discharge of blood by taking away more, yet by this operation the physician has it in his power to relieve the system, and to diminish the danger which might occur in organs liable to be injured by the too great activity of the circulation, or likely to become the seat of diseases which may ultimately prove fatal. Instances of *active hemorrhages* are seen in bleeding from the nose, and from the lungs. There are bleedings again where the system is in a state quite the reverse of activity and excitement, and where artificial blood-letting would be

improper. These hemorrhages are termed *passive*. Such are the true sea scurvy, and the too copious flow of the monthly discharge, when accompanied by sickness and a broken state of health. In *apoplexy*, blood-letting is absolutely necessary also. In *convulsive diseases*, especially if there is an appearance of any tendency to the head; and in certain kinds of *dropsy*, and occasionally in *asthma*; in short, in any disease, by whatever name it may be called, where there is a necessity for quickly reducing feverish action, or diminishing the quantity of blood circulating in the system, or reducing the local inflammation.

The quantity of blood to be taken.—With respect to the quantity of blood to be taken away, no general rule can be given; different diseases are to be treated with different quantities, and in two persons labouring under what might appear to be the same disease, the quantity that would have little effect in the one case, would cure the other. In an adult of good strength, a pound of blood, or sixteen ounces is a moderate bleeding; twenty-four ounces a full bleeding, and from thirty to forty ounces a large one. Some inflammations are so violent, and demand such active treatment, that in one day the bleeding may require to be repeated from three to six times, the quantity taken away in a day varying from sixty to eighty or ninety, and at one bleeding from thirty to fifty ounces. In general, we are not to be regulated by measurement, but by the effect produced by the disease, and on the general system.

Mode of Bleeding.—The veins from which the blood is most commonly taken, are those at the bend of the arm; there the veins are in general pretty numerous and easily got at, and a ligature is easily put around the limb to fill the veins. In diseases of the head, we may consider it advisable to take blood from the external jugular vein, or from the temporal artery. In some cases we find it difficult to get enough of blood from the arms, and we try it from the superficial vein of the foot. In bleeding at the bend of the arm, when the blood appears to run less freely, its flow is increased by the patient squeezing the hand, or grasping something in it, by which the blood is forced from the deep to the superficial veins. Sometimes we are prevented from getting the proper quantity by the patient fainting; in this case we are to lower the head and shoulders, to stop the orifice a little, and then to let the blood flow when the patient is in the ho-

horizontal posture. Sometimes the patient, from mental motion, faints almost immediately on the arm being tied up; and sometimes we must be content with the diminished action of the system, of which this fainting is the proof. Sometimes the veins are so small, or so imbedded in fat, that it is impossible to get the quantity of blood we wish. This is often the case with children. We are obliged, therefore, to resort to other methods, opening the temporal artery, or leeches, or cupping.

Accidents that sometimes follow Blood-letting.—A dark livid swelling sometimes takes place at the wound made in blood-letting. It looks alarming to those who are not familiar with it; but is not in general a circumstance of much consequence, as it arises merely from the blood getting under the cellular substance and skin. It sometimes swells so fast, that the proper quantity of blood cannot be obtained. In this case we must take off the bandage, and apply compresses wet with a cooling lotion—as vinegar, or cold water—to the swelling, retaining them by a slack bandage. The effused blood will in time disappear; and if we have not got enough of blood, it must be taken from the other arm. Sometimes there is an inflammation of the skin in the neighbourhood of the wound. This is to be treated with cooling applications and rest, and by a poultice; if there is a tendency to suppuration, red lines are sometimes seen extending from the wound; these are inflamed absorbents, and are painful on pressure; sometimes the inflammation reaching to the arm pit, causing the swelling of a gland there, and perhaps supuration. Inflammation may spread along the course of the veins, and produce symptoms of the most alarming and even fatal nature. The fascia, or membranous expansion on the fore-arm, may become inflamed, and give rise to great pain, tension, and febrile symptoms. Poultices are to be applied, and an extensive incision made through the fascia, to relieve the tension, and to give vent to this matter. A nerve may be wounded, and this may give rise to convulsions, violent pain, and other symptoms of nervous irritation. In every puncture of the skin, a nerve of some size or other must be wounded; and it is thought to be in consequence of the partial wound of a nerve of some considerable size, that violent accidents occur after blood-letting. The artery of the arm

may be wounded, giving rise either to a dangerous bleeding, or to aneurism.

After enumerating so many accidents that may arise from blood-letting, we may surely be allowed to blame the rashness of those numerous dabblers in surgery, who pretend to be competent to the performance of this operation, but who are ignorant of the precautions they ought to observe, and stand aghast when the dangerous or painful consequences follow. It should be remembered, that as bleeding is one of the most salutary remedies when timely and properly applied, so it is one of the most deadly and destructive when exhibited in wrong circumstances; and though, from its frequency, it must be performed by those whose skill and experience is but small, yet it may be attended with accidents which require the utmost boldness, address, and promptitude, to counteract their fatal tendency.

Blood-letting should not be employed but for the cure of disease, or for the prevention of it when manifestly impending. Many persons who have no particular illness, apply to a surgeon to have blood drawn from them. In Europe, and among country people, blood-letting is habitually employed at certain seasons, with the view of preserving their health; but it is a practice that should not be followed, as it is apt to induce a dangerous habit: and instead of diminishing the quantity of blood, it ultimately increases it. Fulness of the system may be prevented by safe means, such as purging; but even this preventive would be wisely superseded by temperance in eating and drinking; and avoiding the provocative of modern luxury. When apoplexy appears to be likely to make an attack, as indicated by the throbbing of the temples, ringing in the ears, flushing of the face, and headache, then a precautionary bleeding will be very proper. Also, when feverish symptoms occur in those who are known to be subject to spitting of blood.

CARMINATIVES.

Carminatives are those medicines which dispel flatulency of the stomach and bowels, by stimulating the inner coat of the organs. They produce only temporary relief; for if the diseased condition of the alimentary canal be not removed by appropriate remedies, it will very speedily become again distended with flatus. The articles generally employed as

carminatives, are infusions or tinctures of the aromatic seeds and vegetables. The use of these articles is decidedly injurious in every instance in which the stomach or intestines are in the least degree inflamed, or when their sensibility is morbidly increased. They are very favourite prescriptions with nurses and mothers, to allay the griping with which young children are so frequently afflicted, and, under these circumstances, a great deal of mischief is caused by their indiscreet administration. Wholesome food, cleanliness of person, protection from cold and damp, and sufficient exercise, will most generally prevent a flatulent state of the bowels of infants; when, however, it depends upon the disease of those parts, carminatives will seldom do good, but will often increase the sufferings of the little patient.

CATHARTICS.

All medicines which accelerate the action of the bowels, or increase the discharges by stool, are termed cathartics. These remedies, from a general difference in their modes of operation, have been classed under two divisions, namely, laxatives and purgatives. The former operate so mildly, that they merely evacuate the contents of the intestines without occasioning any general excitement of the body, or even stimulating the exhalant vessels of the canal, and extend their effects to the system in general; and when these effects are very violent, the purgative is further distinguished by the name of drastic. Laxatives may then be said simply to open the bowels, and to carry off extraneous matter, which is already present in the cavity; but purgatives, as they occasion more extensive effects, may be made subservient to many important purposes in the cure of diseases. Many medicines which in their usual doses act as purges, may in diminished doses be made to act as gentle aperients. An ounce of Epsom or of Glauber salts, dissolved in about four ounces of water, and taken pretty warm, will purge strongly; but half an ounce in the same, or even a larger quantity of water, will operate as an aperient or laxative. Castor oil, in the dose of from half an ounce to an ounce, is a good aperient, or a dessert-spoonful of sulphur and cream of tartar, with molasses; or an infusion of senna, with or without a small spoonful of tamarinds; or a teaspoonful of cream of tartar; or diminished doses of any of the purging salts; it may be

taken as an aperient. The cases in which it is desirable or necessary to use aperients, and not purges, are in persons of a sedentary life, women in the state of pregnancy, and those who are subject to piles, or where we do not wish to reduce the strength of the patient, or produce increased irritation of the intestines. *Purgative medicines*, as distinguished from *laxative*, in their effects, may be said to produce a considerable influx of fluids from the exhalant vessels which open into the intestine canal, and hence to extend the action to the system in general. The effects of purgatives depend either on their stimulating the muscular fibres of the intestines to a quicker motion, by which the contents of the bowels are more speedily and completely discharged; or on their stimulating the exhalant vessels and the mouths of the mucous glands, which open into the bowels, by which there is an increased discharge both of serous and mucus fluids; or purgatives may so stimulate the neighbouring viscera, as to occasion a more copious discharge of the bile and pancreatic liquor. Different purgatives have different powers of producing several effects. Sulphur, magnesia, and manna, evacuate the bowels without any great increase of serous discharge; while others, as the neutral salts, and some vegetable purgatives—as gamboge and elaterium—produce large watery evacuations, and are thence denominated hydragogues. The mercurial purgatives—as calomel—seem to act chiefly by promoting an increased flow of the bile, and hence are called cholagogues.

The use of purgative medicines is of great importance in the preservation of health, and the cure of disease. They can be so managed and selected as either simply to promote the discharge of the feculent matter, or to cool the system by abstracting watery fluid, and withdrawing the action from the upper parts of the body, or to promote the flow of dropical water by stimulating the absorbents and exhalants, which open in such prodigious numbers on the inner surface of the intestines.

The neutral salts furnish many useful purgative medicines: as the sulphate of soda, the tartarate of soda, and salts; these are commonly given to purge and to cool the system, and are useful in inflammatory disorders. The usual dose of them is an ounce, dissolved in about four ounces of tepid water. They should be taken in the morning, and not too warm; as in that case they will either be thrown up, or pass

off too quickly for the bowels. The purgatives from the vegetable kingdom are very numerous: as aloes, jalap, rhubarb, gamboge, scammony, colocynth, and others; and in addition to these, we have calomel, and perhaps a few more, from the mineral kingdom. Castor oil is a mild and safe purgative, more commonly ranked as a laxative; and there is another oil, (the croton,) famous for its activity in doses so small as a single drop or two. Purgatives are combined together with great and manifest utility; not with the result of adding the powers of one to another, but of making the desired effect more complete, certain, and advantageous. Thus five grains of calomel will purge, and twenty grains of jalap will purge separately; but by giving in one dose, five grains of calomel, and twenty grains of jalap, we do not produce a double evacuation, but one modifies the other, and produces the effect intended, with certainty and expedition. It is unnecessary, in this general article, to speak of the different kinds of purgatives, as we shall detail under each of them their properties, and the reason of preferring any of them in particular cases. We may say here, that it is not a good habit to take frequent purgatives; they relax the intestines, and debilitate the digestive system, as well as the whole body; but in some constitutions, the bowels are so torpid, that it is absolutely necessary for the preservation of health, to take some medicine or other pretty constantly; directed, not so as to produce copious thin stools, but gently to stimulate the intestines, and excite them to evacuate the proper feces.

DIAPHORETICS.

These consist of medicines which, from being taken internally, increase the perspirable discharge by the skin. When this is carried so far as to be condensed on the surface, it forms sweat; and the medicines producing it are termed sudorifics. The operation in both cases is the same, differing only in degree, from increase of dose, from the employment of more active articles, or from the use of auxiliary means. This class of remedies may be divided into—1. *Antiphlogistic diaphoretics*, or those which reduce the action of the heart and arteries. These are principally the antimonials, small doses of ipecacuanha, nitre, and the saline mixture. 2. *Stimulating diaphoretics*: as the volatile salts, essential oils, serpentaria, gum guaiacum, opium, and camphor; these

are proper only in cases where the circulation is languid, the skin below the natural temperature, and the general sensibility of the system is reduced. 3. *Dilutent diaphoretics*, as a weak infusion of balm, camomile, or common tea, toast water, whey, and the like. These are best adapted to cases of fever, after depletion, towards the decline of the hot stage; they are likewise useful in increasing the action of the other diaphoretics. 4. *External diaphoretics*: as the warm or vapour bath, or the application of cold water to the skin when the latter is very hot and dry. Frictions may likewise, in many cases, be ranked under this head.

The proper employment of diaphoretics, as well as in regard to the diseases in which they are demanded, the period of the case when they are resorted to, and the particular kind of diaphoretic to be resorted to, demands a great deal of judgment. By many persons they are considered to be remedies adapted to all cases of disease, whenever the skin is dry and hot; this mistake, causing them to be resorted to under improper circumstances, has caused not a little mischief. In those affections, attended with a dry and burning skin, and violent action of the heart and arteries, the only diaphoretics to be depended upon, are the lancet, cold drinks internally, the application of cold to the surface of the body; and, after the violence of the disease has been broken in this manner, small doses of the antimonials, combined with nitre, or some other neutral salt. In diarrhœa and dysentery, as well as in rheumatism and catarrh, accompanied with a dry, harsh skin, the temperature which is not much above that of health, the warm bath, and combinations of opium and ipecacuanha should be preferred.

When diaphoretics are resorted to, the patient should be confined to bed, the temperature of the room should be kept at a medium point, and sudden transitions from a warm room to a cold air carefully avoided after the sweating has subsided.

DIURETICS,

Are medicines which increase the secretion by the kidneys, and by consequence, the flow of urine. This is an effect which, in many cases of disease, we are very anxious to accomplish, and which has a very salutary tendency. In dropsy, it is always very desirable to increase the flow of

urine, and in several species of that complaint, it is the chief indication of cure. The principal diuretic medicines are the following: cream of tartar, squill, foxglove, acetate of potash, carbonate of soda, spirit of nitrous ether, turpentine, juniper, tobacco and mercury.

These various diuretics have their peculiar modes of operating. Some, as potash and its combinations, nitre and cream of tartar, squill, juniper, and turpentine, seem to act by directly stimulating the kidneys, being carried, more or less decomposed, to these organs. Others, as mercury, stimulate the absorbents primarily, and secondarily the kidneys; others appear to act first on the stomach and digestive organs, or the bowels, and afterwards on the absorbents; such are tobacco, jalap, gamboge, elaterium; while others, by reducing the action of the heart, and emptying the blood-vessels, increase the action first of the absorbents, and secondarily that of the kidneys. Their effect is to be aided by moderate cold to the surface of the body, and we therefore prefer giving them during the day time. It is to be remarked, however, that we are by no means certain of always procuring a diuretic effect by any medicine whatever, and that those which, in general, have the highest character, frequently fail.

EMETICS,

Are substances capable of exciting vomiting, independently of any effect arising from the mere quantity of matter introduced into the stomach, or of any nauseous taste or flavour. The susceptibility of vomiting is very differently modified in different individuals, and is often considerably varied by disease. Emetics are employed in many diseases. When any morbid affection depends upon, or is immediately connected with, over distension of the stomach, or the presence of acrid or indigestible matter, vomiting gives speedy relief. Hence their utility, when too much or improper food has been taken, in cases of intoxication and poisoning. They are serviceable, also, in jaundice, arising from calculi, obstructing the course of the bile in the gall ducts; in the early stages of catarrh, consumption, diarrhœa and dysentery, and in the forming stage of various febrile affections. In nauseating doses they are useful in arresting discharges of blood from the lungs, bowels, and uterus, in dropsies, swelled testicles, buboes, &c.

Their administration is injurious and dangerous in every case in which there is a determination of blood to the head, especially in full habits; in inflammation of the brain, stomach, and bowels; in the advanced stages of pregnancy; in persons affected with hernia; in prolapsus of the womb, and wherever extreme debility is present. The frequent use of emetics produces irritation of the stomach, and impairs digestion. An emetic should, in general, be administered in a fluid form, and its operation may be promoted by drinking any tepid diluent, or weak bitter infusion, as that of camomile flowers, &c. The principal emetics are tartarized antimony, ipecacuanha, sulphate of copper, sulphate of zinc, mustard seed, muriate of soda, and squill.

ENMENAGOGUES,

Are medicines supposed to have the power of acting on the womb, and promoting the menstrual discharge. It is now acknowledged by all judicious physicians, that we know of no substance which has a direct and specific action on the womb; and that whatever success any means may appear to have had, in producing the monthly discharge, was owing to some action on the whole system, or on the neighbouring parts, from which that action has been communicated, by sympathy, to the womb. The non-appearance of the menses in young women, or their obstruction in those who have had them established for some time, is generally owing to some disorder of the system; and whatever removes this, and produces the wished for discharge, may be styled an enmenagogue. Sometimes tonics, sometimes purgatives, have this effect; or if the system be too plethoric, bleeding may contribute to bring on the discharge. Electricity, aloes, cantharides, turpentine, cupping on the loins, or warm fomentation, may all be useful, when directed by a practitioner of skill, who knows the proper time and manner of their exhibition. Sometimes good air, exercise, and a regulation of the diets, are all that is required to establish the monthly discharge. Women are very apt to lay a great stress on the importance of this function, and to be very uneasy if it be too long in becoming regular; but there is no fixed period for its beginning, and while the health is uninjured, they should not take strong medicines with the view of forcing on the discharge.

EXPECTORANTS.

Medicines which are supposed capable of facilitating the excretion of mucus from the chest; that is, from the wind-pipe, air cells, and passages of the lungs. They are chiefly employed in croup, asthma, consumption, and whooping-cough. The greater number of expectorant medicines, are those which, in larger doses, prove emetic, namely, squills, ipecacuanha, antimony, and ammoniacum. Besides those medicines which are more commonly called expectorants, there are various other remedies which indirectly have the same effect. Thus, bleeding, blistering, the warm bath, and nauseating doses of emetics, mucilaginous and demulcent fluids, slowly swallowed, as gum water, liquorice, linseed tea, barley water, and oily emulsion, and the inhalation of the steam of hot water, have the effect of promoting expectoration, by relieving the irritation of the lining membrane of the fauces, wind-pipe, and lungs, and restoring its healthy secretions. Opiates, also, by removing any remaining irritation of the respiratory organs, after depletion has been carried to a sufficient extent, may be considered as, in some measure, an expectorant. Other substances promote expectoration, by directly stimulating the mucous membrane of the trachea and lungs. These can only be resorted to in the absence of inflammation, or in those cases where there is habitually an excessive secretion of fluid in the lungs, which, by its accumulation, impedes respiration, and causes a constant and troublesome cough; this is particularly the case in chronic catarrhs, in certain cases of asthma, and in the catarrhal affections, occurring in old persons. The principal stimulating expectorants, are the fumes of burning tar, the vapour of vinegar, the balsams of copaiba and tolu, seneca snake root, garlic, Indian turnip, assafoetida, &c.

NARCOTICS.

Narcotic medicines are those which have the property of diminishing the action of the nervous and vascular system, and of inducing sleep. These medicines are also called sedatives, anodynes, and soporifics. They appear to act by first exciting the energy of the nervous and vascular systems, and this excitement is followed by a degree of collapse alto-

gether disproportioned to the excitement. This depression is so rapid, that the previous excitement is not perceived, and hence many physicians regard certain substances as direct sedatives. The principal substances possessed of narcotic properties, are opium, hyoscyamus, (henbane,) belladonna, camphor, hemlock, foxglove, stramonium. Each of these substances seem to have some peculiar manner of operation; and when one narcotic fails, another will often induce sleep.

RUBEFACIENTS,

Are remedies which excite the vessels of the skin, and increase its heat and redness. They act precisely in the same manner as blisters, excepting that they produce no vesication, hence they are employed like them to relieve internal irritations, inflammations and congestions; or to excite the absorbents of some external part. The principal rubefacients are, dry frictions, or friction with some volatile liniment, as the liniment of ammonia, soap liniment, decoction of turpentine and cantharides, friction with salt, or dry mustard, mustard poultices, &c.

SIALAGOGUES,

Are medicines which increase the flow of the saliva. This may be produced by chewing various acrid substances, as tobacco, ginger, &c., which, by stimulating the termination of the ducts, excite the glands to the secretion of an augmented amount of saliva. The principal sialagogue, however, is mercury; which, taken into the stomach, or introduced into the system by injection, act on the salivary glands with peculiar energy, and causes the discharge of an immense quantity of saliva, producing at the same time violent inflammation of the gums, tongue, and cheeks. There are few, if any diseases, in which the production of salivation is useful.

STIMULANTS,

Are medicines, or other circumstances, capable of exciting the vital energy, whether as exerted in sensation or motion. These are of various kinds. 1. They are such as are applied to the stomach: as alcohol, tinctures, wine, &c. In

certain cases of debility and disease, a very small portion of the mildest food will act as a stimulant. 2. Diffusible stimulants, or such as are easily extended over the whole frame; as hartshorn, heat, electricity, and galvanism. 3. Tonics, mustard, cantharides.

It will be seen from the above slight enumeration, that in speaking of substances of the first class, we use the term *stimulants*, to denote nearly the same thing as cordials; and and that the other classes are arranged along with them on account of the similarity of their action. The cases in which general stimulants are useful, are those of torpor and debility; but the power of some stimulants is so great, and the constitution is at times so easily affected by them, that much skill and caution is required in their exhibition. Suppose a person debilitated and torpid, after a long fever, or other illness; it would be desirable, no doubt, to restore his strength as quickly as possible. But this is not to be effected by strong stimulants; to him, the use of such in any considerable quantity would probably be fatal. In all diseases of excitement—as inflammation and fevers, stimulants are to be avoided, as well as in all cases in which the stomach is labouring under irritation, or any affection of the brain is present.

TONICS,

Are medicines which are supposed to increase the tone or healthy action, or strength of the living system. Under this head might, in fact, be included nearly all the remedies employed for the cure of disease. The term, however, is restricted to a certain class of remedies, the action of which is not properly understood, but the ultimate effect of which is to increase the energy of the muscles, and to promote the functions of digestion, assimilation, and nutrition; and in this manner, the general exercise of the system. Tonics are chiefly useful in that state of debility which remains after the removal of irritation or inflammation of internal organs, and are hence chiefly prescribed in the intervals between the paroxysms of intermittent fever, and in the stage of convalescence, subsequent to long continued and debilitating diseases. The principal tonics are the vegetable bitters, bark, and various preparations of iron.

ALOES,

Is a well known and very useful purgative medicine. It is a gum resin, or substance soluble in diluted spirits, and is obtained from a plant which grows in Barbadoes, at the Cape of Good Hope, and in the Island of Socotra, in the Indian Ocean. It is prepared by pulling off the leaves, from which the juice is squeezed out, and afterwards boiled and skimmed. Its taste is intensely bitter and disagreeable, though it has an aromatic flavour. Aloes is a warm, stimulating purgative; and it acts chiefly on the large intestines, seldom producing any watery or fluid stools, but merely promoting the easy evacuation of the bowels. It generally agrees well with the stomach, and by its bitterness promotes appetite and digestion; and it is remarkable with regard to it, that it operates as beneficially in a small as in a large dose; one or two grains will often produce one considerable stool, and twenty grains may do no more; excepting in the last dose, the operation will be attended with griping. Aloes is one of the best remedies against habitual costiveness; it is extensively employed by those of studious, sedentary habits, and by females of all classes of society; and from its very general use, and from its certainly acting chiefly on the great intestines, it is not wonderful that many instances are known of its seeming to produce piles, and other irritations of the lower belly and neighbouring parts. It will have this effect when frequently used; and therefore, however useful aloes may be as a mild and certain evacuant, it will be right for those whose constitutions require frequent purgatives, to interpose occasionally a dose of neutral salts, or compound powder of jalap, or infusion of tamarinds, with senna. In indolent habits, where costiveness is accompanied by languid circulation, loss of appetite, disinclination to exertion of mind or body, fretfulness of temper, and those symptoms which the unlearned understand so well by the term nervous, aloes, in some of its various combinations, is one of the most valuable medicines we possess. The cases in which aloes should be avoided, are those of persons subject to piles, to discharges of blood, and where inflammation or irritation exists in the bowels. From their action on the uterine system, they are used in cases where the monthly discharge is obstructed; and for a similar reason, should be used with caution in a state of pregnancy. The dose of aloes is from

three to fifteen grains, but from its disagreeable and bitter flavour, it is never given alone, but combined with aromatics or bitters, or made into pills. The following are some of the most useful forms in which aloes may be taken, with the particular purposes, and times of the day proper for each. They are kept in the shops of apothecaries, under the name prefixed to each of them :—

Aloetic Pills.—Aloes and Castile soap, equal parts. For costiveness, without any peculiarity of symptoms, two pills for a dose at bed-time.

Aloetic Pills with Assafætida.—Aloes, assafætida and soap, equal parts. For hysterical affections, with costiveness and flatulence, two pills every second night at bed-time.

Aloetic Pills, with Colocynth—commonly called *Colocynth Pills.*—When the simple aloetic pills are found too weak, two or three pills at bed-time.

Pills of Aloes with Myrrh, or Pilula Rusi.—In female constitutions, in the full complexion and sluggish habits attendant on the suppression or non-appearance of the monthly discharges, two or three pills may be taken twice or thrice a day.

Rhubarb or Stomach Pills.—These contain a small portion of aloes; they are useful for strengthening the stomach and opening the bowels, and may be taken to the extent of two pills every forenoon, and two in the evening.

The far-famed *Anderson's Pills* consists of Barbadoes aloes, with a proportion of jalap and oil of aniseed, one or two for a dose.

There is another kind of pills which seem a slight variation of the pills called *Dinner Pills*, or *Lady Webster's*, or *Lady Crespigny's* pills, made of equal parts of rhubarb, aloes, and mastick. This last ingredient is not of much virtue in itself, but makes the solution of the others in the bowels gradual and equal. The dose of these pills, which have not received any particular name, is two or three, and the time for taking them is immediately before dinner; they then mix the food, prevent flatulency, and are usually found to operate next morning after breakfast.

ASSAFÆTIDA,

Is a gum resin from a plant growing in Persia—the *ferula assafætida*—procured by cutting the top of the root across;

and when the juice is exuded, it is scraped off, and a second cut made across. This operation is repeated till the root is entirely exhausted of juice. This drug has a strong, disagreeable smell, somewhat like garlic, with a bitter acrid taste. It is one of the most common remedies for spasms, in hysterical complaints, and in irregularities of the monthly discharge. In asthma, and other kinds of difficulty of breathing, in hysterical cases, attended with much flatulence and costiveness, assafoetida is usefully given; in this last case, joined with aloes, in the pills, called the pills of aloes, with assafoetida, of which two may be given every night, or every second night. In the fit of hysterics, a draught of the solution of assafoetida will sometimes put a stop to it immediately. When there is a costiveness, with much distension of the bowels from wind, or colic pains, a drachm or two of assafoetida may be added to a clyster, consisting of about a pint of gruel or infusion of senna, with very good effect. In spasmodic cough, the administration of a mixture, composed of thirty grains of assafoetida, two ounces of the water of acetate of ammonia, and two ounces of peppermint, may be given in doses of one or two spoonful, and the same also has been found of service in whooping-cough.

CREAM OF TARTAR.

Supertartrate of potash—a most useful medicine, obtained from the matter called tartar, incrusting on the bottom and sides of casks in which wine has been kept. This incrustation is purified by dissolving it in boiling water, and filtering it while hot; on cooling, the salt is deposited in irregular crystals, and is called crystals of tartar, or cream of tartar. This substance is a very effectual diuretic. When given as such in dropsy, it may be taken in doses of a drachm twice a day, dissolved in a large quantity of water. It is also used as a purgative; in doses of an half an ounce, made up into an electuary, with an equal proportion of sulphur, it is an excellent laxative in case of piles; and added to jalap, in the proportion of two parts of cream of tartar to one of jalap, it furnishes one of the best purgative powders we possess. It operates mildly and speedily, and besides its purgative effect, it is also diuretic. The dose of the compound powder of jalap is from forty to sixty grains, and it may be given in water, tea, beer, or any other fluid vehicle, taking care that

the cream of tartar be suspended in it, stirring it well immediately before taking it. Cream of tartar is not very soluble in water. The drink called *imperial*, is a solution of cream of tartar, flavoured with lemon peel, and is very useful in feverish disorders, and other cases where a refrigerant drink is wanted. It is improper to use it, however, as an ordinary beverage, as it has a tendency to retard digestion.

DOVER'S POWDERS.

The ingredients of this medicine are, in ten grains of the powder, one grain of opium, one grain of ipecacuanha, and eight of the sulphate of potash; the use of this last substance being chiefly mechanical, to effect the more complete trituration and mixture of the other. It is a most valuable sudorific, and affords a good example of one medicine so altering the properties of another, as to produce a third substance possessed of new powers. It is much used in rheumatism, in dropsy, in catarrh, and in many other diseases where perspiration is required. The soothing effects of opium seem to be greatly increased by its combination with ipecacuanha. In inflammation of the bowels, after the free use of blood-letting, and in peripueral fever, where there is much restlessness and irritability, Dover's powders is an excellent medicine. When we wish to promote perspiration by means of it, it is proper to abstain from drinking much till after the sweat begins to flow.

DYSPEPTIC LEY.

A ley made by infusing a quart of hickory ashes and six ounces of clean soot in one gallon of boiling water, for twenty-four hours, the clear liquor to be then poured off, has been highly recommended, in the dose of a tea cup full three times a day, as a remedy in chronic cases of dyspepsia, attended with much acidity and flatulence.

EPSOM SALTS,

Are one of the most useful of the purgative salts. It is composed of sulphuric acid, combined with magnesia, and is procured by the evaporation of mineral waters, in which it is the chief ingredient, as those of Epsom in Surrey; and like-

wise by the evaporation of the bittern remaining after the extraction of salt from sea water. It is one of those purges which are almost universally proper, and it has nearly superseded the use of Glauber's salts, as being less coarse and disagreeable. The dose for a grown up person is from one ounce to one ounce and a half, dissolved in half a pint of warm water, and drank lukewarm. The morning is the best time for taking saline purges. Epsom salts may also be given in the infusion of senna leaves, a quarter of an ounce being dissolved in four or six ounces of the infusion. The same mixture, of increased strength, may be given as a purgative clyster.

IPECACUANHA.

The root of a plant found in Brazil, which furnishes us with one of the best and safest of our emetics. The introduction of this celebrated root into medical practice was chiefly owing to Helvitius, grandfather of the celebrated author of the work *Der Esprit*, who went from Holland to Paris very young, to practise medicine. He attended and cured a drug merchant, who paid him with a packet of the root from Brazil, called ipecacuanha. After some experiments in the hospitals, Helvitius found it possessed the virtue of curing dysentery. Before the end of thirty-two years he had made 100,000 crowns by the cure of that disease. Louis XIV. gave him a thousand crowns for his secret. So famous was the success of the root, that it obtained the name of radix anti-dysenterica. It does good in pure dysentery, by maintaining a steady motion of the intestines downwards, and by determining to the skin; but in modern practice, we do not trust the cure of that very distressing, and in warm climates, dangerous disease, alone to ipecacuanha, or any one remedy. For any purpose for which an emetic is advisable, no better than ipecacuanha can be desired. Even an over dose has merely the effect of producing too hasty an evacuation of the stomach, but without any bad effects. It may be given as an emetic to very young children, and is not followed by the debilitating exhaustion induced by metallic and other emetics. The root is reduced to powder, and the dose for a grown up person is from fifteen to twenty grains; for a child above a few weeks old, from six to twelve grains, according to the age. White wine extracts the emetic properties of

ipecacuanha, and the ipecacuanha wine is a very good form of administering it, providing there be no degree of fever present. To a child a teaspoonful of the wine may be given every ten minutes till it operates.

Like other emetics, or perhaps with virtues superior in this respect, it proves an excellent expectorant; and may be taken for this purpose, in doses of three or four grains three times a day; or be made up into lozenges, with some sweet or aromatic substance; the ipecacuanha lozenges, containing half a grain each. In nauseating doses, ipecacuanha is very useful in hemorrhages from the lungs and uterus. In dysentery it may be used as an auxiliary to other means; combined with opium it forms the celebrated Dover's powders, now called the powder of ipecacuanha and opium, a very effectual sudorific; and for its soothing effects in colds, rheumatism, and various instances of disordered bowels, one of the most salutary compositions of the pharmacopœia.

JALAP,

Is a plant growing at Xalopa, in Mexico, the powdered root of which is very useful, and much employed as a purgative. The dose is from ten to twenty grains; but it is not often used by itself, but commonly conjoined with calomel, in the proportion of one part of calomel to two of jalap; the dose of such a purge for an adult, of good strength, is five grains of calomel to sixteen of jalap, to be taken in jelly, honey, or any viscid substance, to prevent the calomel falling down by its great weight. To form a very drastic or active purge, as may be desirable in some affections of the head, or with the view of bringing off a large quantity of water in dropsies, a purge may be formed by joining together six grains of aloes, ten of jalap, and five of ascammon, or gamboge; the watery stools produced by such a dose are sometimes of a surprising quantity, and give a great relief.

Compound Powder of Jalap.—Another most useful form of employing jalap, is by combining it with cream of tartar; constituting the compound powder of jalap, one of the most manageable of purgatives, which, with most persons, acts very speedily and safely, and not only evacuates the bowels, but for the time increases the flow of urine. The proportions are one part of jalap to two of cream of tartar; and the dose of the compound powder is from forty to sixty grains.

It may be taken in plain water, gruel, syrup, or any mild liquid most convenient for the patient.

MAGNESIA,

Is a species of earth, of great benefit in correcting acidity of the stomach. It is of the class of what are called alkaline earths; and having an affinity for acids, it attracts whatever acids it finds in the stomach, and forming with it a purgative salt, it produces several easy motions of the bowels, and so removes the acidity, heartburn, and other unpleasant symptoms. Magnesia may be taken to the extent of a teaspoonful twice or thrice a day, according to the urgency of the symptoms; and it may be mixed with water, peppermint water, or any similar fluid, to diminish its insipidity. Magnesia may be safely and usefully given to children, even when very young, mixed with their panada or thin gruel. The best magnesia is what is called burnt, or calcined magnesia. Magnesia is either found in nature, combined with the carbonic acid, or it is obtained in that combination in the process of preparing it from Epsom salts, which are magnesia combined with sulphuric acid. This carbonate of magnesia answers the purpose of correcting acidity, and is cheaper; but in some cases may be disadvantageous, on account of there being an escape of carbonic acid, which gives rise to flatulency in the stomach and bowels: by exposing the carbonate of magnesia to a strong heat for a proper length of time, the carbonic acid is driven off, and the pure magnesia remains, which is then termed pure calcined, or burnt magnesia. Double the quantity of the carbonate is required to produce the same effect as the calcined magnesia.

MORPHIA,

Is a chemical principal contained in opium, and which possesses nearly all the properties of the latter, without the nauseous taste and other objectionable qualities. It is sparingly soluble; it unites with acetic, sulphuric, and hydrochloric acids. It is the sulphate of morphia which is principally employed as a medicine: dose from a fourth to a third of a grain. To induce sleep or abate pain, in cases where anodynes are proper, either of the following prescriptions may be used.

Syrup of Morphia.—Acetic syrup of morphia, four grains, and clarified syrup, one pint, well mixed together. Dose, a dessert spoonful for an adult.

Syrup of Sulphate of Morphia.—Sulphate of morphia, four grains, clarified syrup, one pint, well mixed together. Dose, two teaspoonfuls for an adult.

Anodyne Drops.—Take acetate of morphia, sixteen grains, distilled water, one ounce, acetic acid, three or four drops, and alcohol, one drachm. Dose, thirty or forty drops for an adult.

OPIUM,

Is a medicine of inestimable value, and indispensable for the successful practice of physic. Speaking generally, we may say it is a narcotic medicine, but may be so managed as to procure various other salutary effects in a great variety of diseases. Opium is obtained from the white poppy, *papava somniferum*, and is chiefly prepared in Turkey, Persia, and India. The plant grows also in many parts of Europe, but the opium obtained in the places first mentioned, is what is chiefly valued in medicine. Opium is procured in the following manner: when the seed capsules are about half grown, two or three longitudinal incisions are made at sunset in each capsule, but so as not to reach the internal cavity; a juice exudes, which is removed as fast as it concretes; this is put into earthen pots, and afterwards dried in the sun. Opium should be of a rich brown colour, a tough consistency, and rather smooth and uniform in its texture. Its heavy narcotic smell should be strong and free from all mustiness, and there should be no burnt odour; its taste is bitter and a little acrid. Opium has been produced in England of a very good quality, but the moist and changeable nature of the climate, renders it impossible to procure it good and abundant enough to supply the demand for it.

Uses of Opium.—It is employed in the practice of physic, and I will enumerate a few of the diseases, or other states of the system, in which it may be given. In combination, says Dr. Paris, the medical powers of opium are wonderfully extended, so that there is scarcely a disease in which it may not, during some of its stages, be rendered useful. Opium is very generally given when we wish to produce sleep. Its dose for this purpose is, from twenty-five to fifty drops of laudanum, or ten drops of black drop, or one grain of crude

opium. It is frequently prescribed to procure rest in fever, in agues, in burns, in small pox, in dyspepsia, and in a great variety of cases of watchfulness and irritation, taking care that it is not administered, or at least very cautiously, when there is fulness of the system, an inflammatory state of the body, costiveness, or a tendency of the blood to particular organs. Opium is much employed to mitigate pain, and there is no substance whatever, which has such extensive and seldom-failing powers as this.

As an anodyne, it is employed in griping of the bowels, in cramps, in gall-stones, jaundice, dysentery, burns, and poisons, and even in some inflammations, provided we have premised proper blood-letting. Opium is used to allay inordinate action, and so to act as an antispasmodic in convulsions, in tetanus, in asthma, in colic and hysterics. Opium can be absorbed from the surfaces, and so exert its peculiar powers on the system.

Effects of an overdose of Opium.—By mistake, or design, opium is sometimes swallowed in such a quantity as to produce very alarming effects. The principal of these are, giddiness, a bloated and flushed appearance of the face, a slow full pulse, and oppressive breathing, as in apoplexy. There are also troublesome dreams, startling or convulsions, cold sweats, vomiting, hiccup, and fainting. As soon as the accident has been discovered, the stomach should be emptied, by the stomach pump, or by a speedy emetic, as thirty grains of the sulphate of zinc, or eight of the sulphate of copper, dissolved in three or four ounces of warm water; and its operation is to be assisted by the drinking of warm water.

When the stomach is evacuated, drowsiness must be prevented by keeping the patient in continued motion; strong coffee has been found to diminish the headache and stupor; and bleeding, especially from the jugular vein, should be resorted to, for the purpose of relieving the apoplectic symptoms. Afterwards, ammonia and other stimulants are to be tried. If the patient cannot swallow, or if the emetics do not empty the stomach, if the pupils are dilated, the breathing difficult, and the system in a state of torpor, from which it cannot be roused, there is every reason to fear that death will be the consequence of the poison. In all cases of poisoning with opium, dashing cold water over the face, head and shoulders, is a powerful remedy.

The ordinary duration of a fatal case of poisoning with

opium, is from seven to twelve hours. Most people recover who outlive twelve hours. The dose of opium requisite to cause death has not been determined; it is very much altered by habit. Those who have been accustomed to eat opium, are obliged gradually to increase the dose, otherwise its usual effects are not produced.

THE USE OF CALOMEL.

Calomel is the preparation of mercury, and one of the very best products of that remarkable and useful mineral. It is a compound of the black oxide of mercury with muriatic acid, the acid being in less quantity than is sufficient to neutralize the base; or, according to the more modern view, it is a chloride of mercury.

Calomel is one of the most useful mercurial preparations we have. It is principally used as a purgative, and there are few purgatives more convenient. It may be administered to patients of every age, and in a great variety of complaints. It is a medicine which, on account of its efficacy in a very small bulk, and its having no nauseous taste, is excellently adapted for children. To infants from a few weeks to a year old, it may be given in doses of from half a grain to two grains, according to their age; we must never forget that it is a preparation of mercury; and as this active mineral, if not carefully administered, may prove a poison instead of a remedy, it ought to be alternated with some purgative of quite a different character, and given only occasionally, and at intervals. As mercury is apt to exert its peculiar action on the mouth, we must be careful not to order it in cases of thrush and ulceration of the mouth, to which children are subject. In disorders of the digestive organs in children, accompanied with wasting, pale colour, picking of the nose, and the symptoms commonly supposed to indicate worms, very small doses of calomel, combined with magnesia, or prepared chalk and ipecacuanha, will often produce very beneficial effects, when aided by a proper diet, and the warm bath. When the child is really troubled with worms, especially the long round worm, or the small white ones, three grains of calomel, with six or eight of jalap, form a good vermifuge.

In croup, it was at one time thought to be a very efficient practice, to give calomel to the amount of five grains every

hour, even till eighty grains were taken in a day, but this practice does not seem to have kept its ground; as croup requires very active treatment for its inflammatory and spasmodic symptoms, and cannot wait for the mercurial action of calomel, nor does there seem any specific power in calomel against croup. In inflammation of the bowels, it has been recommended to give doses of calomel so large as twenty or thirty grains; but there seems no peculiar advantage in this plan; indeed, many practitioners have doubts whether any effect whatever, results from such doses. When we wish the purgative effects of calomel in an adult, the best way is to combine it with jalap, rhubarb, scammony, or the extract of colocynth; five grains of calomel to fifteen of jalap or rhubarb, or eight of scammony or aloes, (increasing the quantity of both ingredients if necessary,) form a very valuable purge. Calomel is frequently employed with the intention of introducing mercury into the system; and for this purpose, the dose is one grain to two, taken night and morning, and it is administered very conveniently in the form of a pill. It would be difficult to enumerate the great variety of diseases in which calomel is used.

QUININE,

Is a vegetable alkaloid body, discovered by modern chemists, in the yellow Peruvian bark. It is a white powdery substance, sparingly soluble in water, but dissolved by warm alcohol. Quinine is now much employed in medicine, being found to answer all the purpose of bark; and as small doses only is necessary, it does not produce the unpleasant effects of the bark in powder, or infusion. Eight grains are considered equal to an ounce of the powdered bark.

RHUBARB,

Is a plant, the root of which is much used in medicine. All the rhubarb of commerce grows on the mountains of Chinese Tartary. It is imported into Russia, and what comes to us from thence is always good, as much attention, both in purchasing and transporting it, is paid by order of the government. It is improperly called Turkey rhubarb. Rhubarb is a mild cathartic, which operates without violence or irritation, and may be given with safety even to pregnant

women, and children. In some people, however, it occasions severe griping. Besides its purgative quality, it is celebrated as an astringent, by which it increases the tone of the stomach and intestines, and proves useful in diarrhœa.

Rhubarb is exhibited, 1. In substance, in the form of powder; it operates more powerfully as a purgative in this form, than in any other. The dose for an adult is a scruple; its laxative effects are often increased by the addition of neutral salts, or other more active purgatives. 2. In infusion, rhubarb yields more of its purgative property to water, than alcohol. The infusion is, however, considerably weaker than the powder, and requires double the dose to produce the same effect. The virtues of rhubarb are destroyed by roasting or boiling.

Rhubarb is one of the medicines most usefully given to children. As a laxative, it may either be given to them alone, in doses of from six to ten grains, in water gruel or jelly; or two grains of calomel, with six of rhubarb, may be given at once; or it may be combined with magnesia, four grains of rhubarb, to fifteen of magnesia.

The compound rhubarb pills are composed of rhubarb, aloes, and myrrh, each five grains; two pills to be taken once a day for an adult, while there is weakness of the digestive powers.

SARSAPARILLA,

Is a plant growing in South America, the root of which had great celebrity many years ago, for their power of curing syphilis. It is now agreed, that sarsaparilla has no power whatever, in the cure of true syphilis, though it has some good effects in certain cutaneous disorders. It is of service to those dull pains in the bones and joints, the sore throat, and other symptoms, which appear to be owing to the combined effects of mercury and syphilis. In spreading sores, in some forms of scrofula, and in debilitated constitutions, it has done good. The best way of using it is in decoction, or compound syrup, of which half a pint is to be taken daily, or an ounce of the powder.

SULPHUR

Sulphur, or brimstone, as it is sometimes called, is procured in the form of cylinders, and in fine powder. It has

neither taste or smell, but when rubbed has a faint peculiar odour. It is of a yellowish colour; it is purified by sublimation, and when thus purified, it is called flour of sulphur, in which form it is used as a mild purgative, which purpose it completely answers. The dose is from one to two drachms, it may be given with syrup or molasses; and when combined with an equal portion of cream of tartar, forms one of the best and mildest laxatives for those who are troubled with piles. Sulphur has long been famous for its powers of curing diseases of the skin, and for being a specific in the itch. For this purpose it is applied in the form of ointment, the sulphur being mixed with lard or butter, and rubbed over the parts affected, or as much of them at a time as may be judged proper. At the same time, the patient may take a little sulphur internally. The rubbing for the itch may be continued for four or five days, when the disease is commonly removed. There are great popular apprehensions about exposure to the air when using sulphur; it no doubt pervades the pores of the body, this is evident by the smell it exhales, and by blackening silver in the pocket. But while under its influence there is no more need than of the usual precautions against taking cold. Sulphur is a favourite remedy with the people in measles, and other eruptive diseases. It is very harmless, and may, by acting gently on the bowels, be of some service in the commencement of these diseases. Sulphur counteracts the activity of mercury.

SNAKE ROOT,

Is Virginia snake root, or *Polygala Senega*. This plant is almost entirely destitute of smell, with, at first, a sweetish taste, but afterwards hot and pungent. It is used either in substance, or infusion of the powdered root; the dose is twenty to thirty grains; of the infusion, one to two drachms. In its effects upon the system, it is reputed a stimulant, tonic, and diaphoretic. The diseases in which it has been found most beneficial, are the lower grades of fever.

IRON.

This metal, so widely diffused through nature, so essential in its metallic form, and its large aggregations to the comfort, and even to the existence of civilized society, is capable of

entering into various chemical combinations, which render it fit to be taken into the body, and capable of producing various salutary effects. These are principally of a tonic or strengthening nature. The preparations of iron most in use are the carbonate, the sulphate, and the tincture of muriate of iron; steel filings are also used, in the view of their being oxidated in the stomach and intestines. The dose of the various preparations of iron, when used as tonics, are the following: of the carbonate, from ten to fifteen grains may be taken in molasses, jelly, honey, or the like; of the sulphate, one or two grains may be rubbed together with aromatic powder, and taken, at first, once, then twice a day; of the tincture of muriate of iron, ten drops may be given in water, twice a day, increasing them to twenty or thirty a day. The carbonate of iron has of late been celebrated for other virtues than those of a mere tonic, and has been thought serviceable in painful affections of the face, called the nerve pang, and also in cancer. The dose for this purpose is ten grains, four times a day.

APPENDIX.

THE USES AND DOSES OF MEDICINE.

In giving an account of diseases and their remedies, we have endeavoured to be as distinct and intelligible as possible, and to put it in the power of any sensible person to know generally what should be done in most cases. The following is a list of preparations mentioned, of which many of them may be prepared at the residence of the patient.

The doses of medicine mentioned in this work are for grown up persons; for young persons under fifteen years of age they must be diminished in nearly the following proportions, for example:—if the dose for a person of twenty-one years of age, be twenty grains, then for one of fourteen years, it will be fourteen to sixteen grains; seven years old, ten grains; five years old, seven grains; one year old, three grains; six months old, two grains.

Sixty drops are considered equal to a common sized teaspoonful, and a tablespoonful to half an ounce.

Brown Mixture.

Take of liquorice ball, three drachms, dissolve it in four ounces of boiling water, rubbing it in a mortar, and adding the water gradually, then add powdered gum arabic, two drachms, let the mixture cool, and add:—

Antimonial wine,	-	-	-	2 drachms.
Tincture of opium,	-	-	-	1 “
Spirits nitre dulce,	-	-	-	2 “

This is a valuable expectorant. Paregoric may be substituted for the laudanum, by taking three times the quantity. Dose for an adult, a tablespoonful every two or three hours.

Mixture of Camphor.

Take of Camphor,	-	-	-	2 drachms.
“ Alcohol,	-	-	-	35 drops.
“ Calcined magnesia,	-	-	-	1 drachm.

Rub up the camphor and alcohol in a mortar, then add the

magnesia, and rub them well together, then add gradually one and a half pints of pure water; then filter the mixture through paper. If alcohol cannot be got, whiskey will answer tolerably well. Dose for an adult, one or two tablespoonsfuls every hour or two. This is an antispasmodic, anodyne, and diffusible stimulant.

EMETICS.

In using emetics a few simple rules are worthy of attention. Whatever may be the apparent necessity for emptying the stomach, all the circumstances of the case must be taken into consideration, particularly if there be much arterial excitement, and a determination of blood to the head. When these symptoms are present, blood-letting should be done.

Where poisons have been taken, the first object is to evacuate the stomach as soon as possible, and for this purpose we should select an emetic which is prompt in its action.

When free vomiting is wanted, plentiful draughts of tepid water would be useful. Sometimes the tickling of the throat with a point of a feather, or finger, will induce vomiting.

When excessive vomiting occurs, it may be checked by some one or more of the following remedies:

Ice, broken into small pieces, and allowed to dissolve in the mouth. Lime water and milk; a tablespoonful of each mixed cold, and given at intervals of fifteen or twenty minutes. Brandy and water, and cloves, or green tea, will check the vomiting.

When these means fail, an anodyne injection will sometimes do. As an external application, mustard to the stomach; also spice plasters, and hot fomentations of brandy and cloves to the stomach.

Powder of Ipecacuanha.

Take powder of ipecacuanha, two scruples, divide it in two doses; one to be taken in a little molasses, or sugar and water, and followed by a draught of tepid water. If one powder does not produce the desired effect, the second to be taken in like manner.

Powder of Ipecacuanha with Tartar Emetic.

Take Powdered ipecacuanha,	-	-	-	1 scruple.
" Tartar emetic,	-	-	-	1 grain.

Mix—to be taken in the same manner as the former.

Powder of White Vitriol, or Sulphate of Zinc.

Take of White vitriol - - - - - 5 grains.

Mix—to be taken in a little molasses or jelly.

This medicine is very prompt in its operation, and is mostly employed in cases of poisoning.

Antimonial Wine.

Take of Antimonial wine, - - - - - 1 ounce.

A teaspoonful to be taken every ten or fifteen minutes until free vomiting is effected.

Infusion of Lobelia.

Take of Lobelia leaves, - - - - - 1 ounce.

“ Boiling water, - - - - - 1 pint.

Mix.—A small wine glassful may be taken every half hour until vomiting succeeds.

This plant, called Indian tobacco, is frequently made in the form of a saturated tincture. The dose of the latter is a table-spoonful every half hour until vomiting is excited. It has gained considerable celebrity in the treatment of asthma, and is now employed by the steam doctors as a part of their treatment of all diseases. It should be used with great caution.

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CATHARTICS.

It may be observed as a general rule, that cathartics are capable of fulfilling three different indications:—1st, simply to evacuate the bowels; 2d, to excite an increased discharge from the bowels; and 3d, to stimulate the viscera, and cause them to pour out a greater quantity of their fluids.

It seldom happens that the same article will produce those three different effects; in order to do this we must combine different cathartics. It is better to give cathartics on an empty stomach. If given after a full meal, it is apt to produce nausea, and sometimes vomiting, and does not open the bowels with the same certainty or effect. The operation of cathartics may be very much assisted by free exhibition of diluting drinks, such as oatmeal gruel, barley water, &c. Finally, the operation of a cathartic may often be promoted by blood-letting.

*Powder, with Calomel and Jalap.*

Take of Calomel, - - - - - 12 grains.

“ Jalap, - - - - - 12 “

Mix in molasses—to be given at one dose.

*Powder, with Calomel, Jalap, and Rhubarb.*

|                                        |   |   |   |   |   |           |
|----------------------------------------|---|---|---|---|---|-----------|
| Take of Calomel,                       | - | - | - | - | - | 8 grains. |
| “ Jalap,                               | - | - | - | - | - | 10 “      |
| “ Rhubarb,                             | - | - | - | - | - | 8 “       |
| “ Oil of peppermint,                   | - | - | - | - | - | 1 drop.   |
| Mix with molasses—to be taken at once. |   |   |   |   |   |           |

*Powder, with Magnesia and Rhubarb.*

|                                             |   |   |   |   |   |                        |
|---------------------------------------------|---|---|---|---|---|------------------------|
| Take of Magnesia,                           | - | - | - | - | - | $\frac{1}{2}$ scruple. |
| “ Rhubarb,                                  | - | - | - | - | - | 1 “                    |
| “ Oil of cinnamon,                          | - | - | - | - | - | 1 drop.                |
| Mix in sugar and water—to be taken at once. |   |   |   |   |   |                        |

*Powder of Calomel and Rhubarb.*

|                          |   |   |   |   |   |            |
|--------------------------|---|---|---|---|---|------------|
| Take of Calomel,         | - | - | - | - | - | 10 grains. |
| “ Rhubarb,               | - | - | - | - | - | 10 “       |
| “ Tartar emetic,         | - | - | - | - | - | 1 “        |
| “ Oil of cinnamon,       | - | - | - | - | - | 1 drop.    |
| Mix—to be taken at once. |   |   |   |   |   |            |

## PILLS.

*Pills of Calomel, Jalap, and Rhubarb.*

|                                      |   |   |   |   |   |           |
|--------------------------------------|---|---|---|---|---|-----------|
| Take of Calomel,                     | - | - | - | - | - | 8 grains. |
| “ Extract of Jalap,                  | - | - | - | - | - | 8 “       |
| “ do. of Rhubarb,                    | - | - | - | - | - | 5 “       |
| Mix into a mass—to be taken at once. |   |   |   |   |   |           |

*Pills of Aloes and Rhubarb.*

|                                    |   |   |   |   |   |                       |
|------------------------------------|---|---|---|---|---|-----------------------|
| Take of Aloes,                     | - | - | - | - | - | $\frac{1}{2}$ drachm. |
| “ Rhubarb,                         | - | - | - | - | - | $\frac{1}{2}$ “       |
| “ Soap, sufficient to make a mass. |   |   |   |   |   |                       |

Mix, and make into twenty-five pills. These pills to be taken three a day in habitual costiveness, and dyspepsia.

*Pills of Croton Oil.*

Take of Oil of Croton, - - - - - 1 drop.  
Make into four pills—one to be taken every hour until they operate.

This is a powerful remedy, and must be used with caution.—  
One drop is a full dose, and sometimes less will answer every purpose.

*Pills of Rhubarb, Aloes, Gamboge, and Myrrh.*

|                    |   |   |   |   |            |
|--------------------|---|---|---|---|------------|
| Take of Rhubarb,   | - | - | - | - | 30 grains. |
| " Pulv. Aloes,     | - | - | - | - | 20 "       |
| " " Gamboge,       | - | - | - | - | 10 "       |
| " " Gum myrrh,     | - | - | - | - | 5 "        |
| " " Charcoal,      | - | - | - | - | 5 "        |
| " Oil of anniseed, | - | - | - | - | 25 drops.  |

Mix into a mass, and make into nine pills—three to be taken daily for dyspepsia.

*Pills with Aloes and Mercurial Blue Mass.*

|                    |   |   |   |   |            |
|--------------------|---|---|---|---|------------|
| Take of Blue mass, | - | - | - | - | 1 scruple. |
| " Aloes, powdered, | - | - | - | - | 30 grains. |

Mix, and make fifteen pills—one to be taken every two hours until they operate.

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Saline Purgatives.

Saline purgatives are, Glauber salts, Epsom salts, and Rochelle salts. Dose of each—an ounce dissolved in three ounces of tepid water, and taken once a day.

Simple Senna Tea.

Take three drachms of senna leaves, infused in half a pint of hot water; a spoonful of manna, or tamarinds, adds to its efficacy, and makes it more pleasant to take.

Compound Senna Tea.

Take of Senna leaves,	-	-	-	-	1 ounce.
" Manna,	-	-	-	-	$\frac{1}{2}$ "
" Cream of tartar,	-	-	-	-	4 drachms.
" Cinnamon bark,	-	-	-	-	$\frac{1}{2}$ ounce.
" Boiling water,	-	-	-	-	1 pint.

Infuse for one hour. Dose, a wine glassful every two hours.—This is a very valuable and effectual purgative for all acute diseases.

Castor Oil.—From an ounce to a half ounce is an ordinary dose.

Gamboge, in powder, from two to five grains.

Rhubarb, in powder, from fifteen to twenty grains. The above medicine may be usefully combined with from five to fifteen grains of calomel. Two of them may be also combined together, as jalap and scammony, or gamboge and rhubarb.

Aloes.—An excellent purgative. Dose, six grains; may be taken in pills, with various combinations.

Calomel is seldom used alone as a purgative; but in some persons, a few grains (from eight to twelve) move the bowels freely.

Mixture of Magnesia and Rhubarb.

Take of Magnesia,	-	-	-	-	½ drachm.
“ Pulv. rhubarb,	-	-	-	-	8 grains.
“ Sugar,	-	-	-	-	a teaspoonful.
“ Essence of peppermint,	-	-	-	-	6 drops.
“ Water,	-	-	-	-	1½ ounce.

Mix. A teaspoonful to be given every two hours to children, until it operates.

Decoction of Prunes.

Take of Prunes,	-	-	-	-	-	3 ounces.
“ Water,	-	-	-	-	-	3 pounds.

Used as a mild laxative.

EXPECTORANTS.

During the administration of expectorants, the patient should be kept warm; and if the complaint be violent, they should be in bed. The dose of all expectorants should be repeated sufficiently often to allay the irritation as much as possible; for it is obvious that the act of coughing increases the inflammation.

Pills of Squills, Calomel, &c.

Take of Calomel,	-	-	-	-	3 grains.
“ Powdered squills,	-	-	-	-	1 scruple.
“ Dover's powders,	-	-	-	-	1 drachm.

Make into a mass, and divide into thirty pills. Take one three or four times a day. Very good in troublesome cough, for an adult.

Tar Pills.

Take of Tar, 1 drachm; Pulv. liquorice root, a sufficient quantity to make twenty-five pills.

One to be taken every three hours.

Dover's Powders.

Take of Powdered opium,	-	-	-	-	15 grains.
“ Ipecacuanha,	-	-	-	-	15 “
“ Sulphate of potassa,	-	-	-	-	2 drachms.

Mix them in a mortar, and divide any quantity of this mixture into powders containing ten grains each. Dose, from five to ten grains, for an adult.

Infusion of Boneset.

Take of the dried leaves of boneset, - - - $\frac{1}{2}$ ounce.
 " Boiling water, - - - 1 pint.

Let the tea draw by a fire in a covered vessel, for twenty minutes. The best mode of giving this highly valuable herb, are various. In severe colds, when the object is a powerful perspiration, it should be taken as hot as possible, the patient to be covered warm in bed. An adult should take half the above quantity as rapidly as its heat permit. The remainder, again heated, may be taken in two doses, at intervals of half an hour. When used as a tonic, it should be taken quite cold, in doses of a wine glassful every two hours. When taken moderately warm, it often produces vomiting.

Simple Cerate.

Take of Beeswax, - - - 1 pound.
 " Lard, - - - 4 do.
 Mix them with a gentle heat, and stir till cool.

Ointment of Basilicon.

Take of Rosin, - - - 5 ounces.
 " Lard, - - - 8 "
 " Yellow wax, - - - 2 "
 Mix them together, and stir the mixture until cool.

Ointment of Red Precipitate.

Take of Red precipitate, finely powdered, - 1 drachm.
 " Simple cerate, - - - 1 ounce.
 Warm the cerate, then add the precipitate, gradually rubbing it well with a knife.

Tar Ointment.

Take of Tar, - - - 1 ounce.
 " Suet, or simple cerate, - - - 1 "
 Melt the cerate with a gentle heat, and stir until cool.

Fermenting Poultice.

Take of Yeast, - - - 1 gill.
 " Flour, - - - $\frac{1}{2}$ pound.
 Mix, and set the mixture in a warm place to rise; when it begins to rise it is ready for use.

Lime Water.

For domestic use lime water is best prepared thus:—

Take of unslacked lime, about	-	-	-	$\frac{1}{2}$ pound.
“ Pure water,	-	-	-	2 quarts.

Put the lime in a wide mouth earthen vessel, and pour the water upon it. Let the mixture stand a short time, then stir it well, and pour it into clean porter bottles, before the lime subsides. Cork the bottles tightly. When used, the lime water is to be poured off without agitation, and only that which is perfectly clear should be used.

Flaxseed Poultice.

Boil flaxseed meal in just sufficient water to make a poultice of proper consistency.

Charcoal Poultice.

Take a sufficient quantity of fresh charcoal, reduce it to a fine powder, and mix with flaxseed poultice, or simple corn mush.

Volatile Liniment.

Take of Spirits of hartshorn,	-	-	-	1 part.
“ Sweet oil,	-	-	-	4 parts.
“ Spirits of camphor,	-	-	-	2 “

Shake them well together in a vial.

TONICS.

Those medicines which are considered tonics, impart strength to the system, without subjecting it to any preternatural excitement during their operation. They stimulate in a secondary manner, by gradually increasing the force of the circulation, and by restoring the digestive functions to a more healthy state.

Pills of Sulphate of Quinine, &c.

Take of sulphate of quinine, ten grains, and conserve of roses, sufficient to make a mass. Mix, and make ten pills; one to be taken every hour in intermittent fever.

Pills of Steel Filings.

Take of steel filings, fifteen grains, extract of gentian, sufficient to make a mass, and divide in six pills. Dose—one three times a day, followed by some bitter infusion, is very good.

Mixture of Sulphate of Quinine.

Take of Sulphate of quinine, - - - 15 grains.
 " Sulphuric acid, - - - 5 drops.
 " White sugar, - - - 1 drachm.
 Mix—take a teaspoonful for a dose, every hour during the paroxysm of intermittent fever.

Decoction of Wild Cherry Tree Bark.

Take of Wild cherry tree bark, - - - 1 ounce.
 " Orange peel, - - - 2 drachms.
 " Water, - - - 1 pint.

Boil the bark alone for half an hour, and then add the orange peel. A wine glassful may be taken every two hours, in consumptive cases and asthma.

Infusion of Virginia Snake Root.

Take Virginia snake root, - - - 1 ounce.
 " Boiling water, - - - 1 pint.

Put them into a covered vessel for one hour. Dose, a wine glassful every two or three hours.

Powdered Gentian Root.—Fifteen to twenty-five grains for a dose.

Colombo.—Fifteen grains twice a day, is an ordinary dose.

Infusion of Camomile.—Take a pint in the course of the day.

 DIETETIC PREPARATIONS.

It is important that the diet of the patient, during disease and convalescence, should be observed with a great deal of correctness. It was remarked by an eminent professor in one of his lectures, that a physician should spend some months in a kitchen before he commenced practising; as it is the duty of the doctor to give directions and rules for preparing the diet for the sick, we have inserted a few formulas, for those articles which are in daily use. The rules to be observed in giving nourishment to the sick, will generally present themselves, but there is one in particular, which should not be overlooked. In all low diseases, the nurse should be directed not to give too much at once, but frequently to repeat a small proportion. The lapse of a very short time without food, will frequently, in cases of great prostration, reduce the patient very low, and may endanger his life.

Rice Gruel.

Take of Rice, ground,	-	-	-	-	1 ounce.
“ Cinnamon bark,	-	-	-	-	1 drachm.
“ Water,	-	-	-	-	1 quart.

Boil for forty minutes, adding the cinnamon near the conclusion; strain and sweeten it. Wine may be added, if necessary.

Water Gruel.

Take of Oatmeal,	-	-	-	-	2 ounces.
“ Water,	-	-	-	-	1 quart.

Boil for fifteen minutes and strain, adding sugar and salt to make it agreeable.

Rice Water.

Take of Rice, washed clean,	-	-	-	-	3 ounces.
“ Water,	-	-	-	-	3 quarts.

Boil it for an hour and a half; then add sugar and nutmeg, as much as may make it palatable.

Barley Water.

Take of Barley,	-	-	-	-	1 ounce.
“ Boiling water,	-	-	-	-	1 quart.

Let the barley be well washed; then boil down to one half, and strain the liquor. A little lemon juice and sugar may be added. To be taken occasionally in inflammatory diseases.

Lemonade.

Take of Lemon juice, fresh,	-	-	-	-	4 ounces.
“ Lemon peel,	-	-	-	-	$\frac{1}{2}$ “
“ Sugar,	-	-	-	-	4 “
“ Boiling water,	-	-	-	-	3 pints.

Let them stand until cool; then strain off for use. When employed in fevers, a little sweet spirits of nitre may be added.

Panada.

Take of Wheat bread,	-	-	-	-	1 ounce.
“ Cinnamon,	-	-	-	-	1 drachm.
“ Water,	-	-	-	-	1 pint.

Boil them until well mixed; then add a little nutmeg and sugar. Wine or bitters may also be added, if desirable.

Sago.

Take of Sago,	-	-	-	-	2 spoonsful.
“ Water,	-	-	-	-	1 pint.

Boil gently until it thickens, frequently stirring. Add wine, sugar, and nutmeg.

Arrow Root.

Take of Arrow root,	-	-	-	1	tablespoonful.
" Sweet milk,	-	-	-	$\frac{1}{2}$	pint.
" Boiling water,	-	-	-	$\frac{1}{2}$	pint.

Boil them a few moments over the fire; then sweeten with sugar.

Boiled Flour.

Take of fine flour,	-	-	-	1	pound.
---------------------	---	---	---	---	--------

Tie it up in a linen cloth as tight as possible; and after frequently dipping it in cold water, dust the outside with flour till a crust is formed round it, which will prevent the water soaking into it, while boiling. It is then boiled until it becomes a hard, dry mass. Two tablespoonsful of this may be grated, and prepared in the same manner as arrow root; for which it forms an excellent substitute, and can be obtained in the country when perhaps the other cannot.

Vegetable Soup.

Take one turnip, one potato, and one onion; let them be sliced and boiled in one quart of water for an hour. Add as much salt as is agreeable, and pour the whole upon a piece of dry toast.

Beef Tea.

Take of lean beef, cut in small pieces,	-	-	-	1	pound.
" Water,	-	-	-	-	1 quart.

Boil it for twenty minutes, taking off the scum as it rises.—After it grows cold, strain the liquor. This preparation is very nourishing and palatable.

Spice Plaster.

Take of Powdered cloves,	-	-	-	$1\frac{1}{2}$	teaspoonful.
" Ground cinnamon,	-	-	-	$1\frac{1}{2}$	"
" Ground allspice,	-	-	-	$1\frac{1}{2}$	"
" Ground black pepper,	-	-	-	1	"
" Flour,	-	-	-	4	"

Mix them into a paste, with vinegar, and spread them upon muslin.

If a powerful local stimulation be required, Cayenne may be substituted for black pepper.

Turpentine Mixture.

Take of Spirits of turpentine,	-	-	-	1	drachm.
" Laudanum,	-	-	-	1	"
" Loaf sugar,	-	-	-	2	"
" Water,	-	-	-	6	ounces.
" Whites of two eggs.					

Let the whites of the eggs be placed in a five ounce bottle;

then pour over it the spirits of turpentine, the laudanum, and a little water. Shake the bottle well. Dissolve the sugar in a little water; add to it the mixture, and again shake the bottle; then fill the bottle with water, by little and little, agitating it at each addition.

Dose for an adult :—One tablespoonful every two hours. If the mixture be designed for a purgative, the turpentine may be doubled in quantity, but the laudanum must be omitted.

CATALOGUE

Of some of the Principal Drugs used in this Work.

It is deemed advisable to add a list of a few of the principal drugs and implements mentioned in this book, which are suited for occasional use in families.

LIST OF DRUGS.

Alcohol,	Chincona, (Peruvian bark,)
Antimony, powdered,	Cinnamon,
Anniseed,	Columbo root,
Arrow root,	“ “ powdered,
Assafœtida,	Coxe's hive syrup,
Alum,	Croton oil,
Acetate of lead, (sugar of lead,)	Court plaster,
Antimonial wine,	Cream of tartar,
Allspice,	Caustic potassa,
Blue vitriol,	Carbonate of iron,
Burgundy pitch,	Carbonate of lime, (prepared
Balsam copaiva,	chalk,)
Beeswax,	Dover's powders,
Boneset, the herb, (<i>Eupatorium</i>	Dragons' blood,
<i>Perfoliatum</i> ,)	Epsom salts,
Borax, refined,	Elder flowers,
Calomel,	Ergot, (spurred rye, powdered,)
Camomile flowers,	Elixir of vitriol,
Camphor,	Extract of cicuta,
Cloves,	Extract of liquorice,
Cantharides, (Spanish flies,)	Flour of sulphur,
Cantharides, tincture,	Flaxseed,
Caroline pink root,	Fol. senna Alexandria,
Castor oil,	“ digitalis,
Chloride of lime,	“ lobelia inflata,
Castile soap,	“ uva ursi,

Gentian root,
 Ginger, ground,
 Gum arabic,
 Gum ammoniac,
 Gum assafœtida,
 Gum guaiacum,
 Hive syrup,
 Hoffinan's anodyne,
 Honey,
 Hiera picra,
 Horsemint, the herb,
 Iodyne,
 Ipecacuanha, powdered,
 Itch ointment,
 Jalap,
 Juniper oil,
 Lemon peel,
 Lime water,
 Liquorice root,
 Liquorice ball,
 Lint, patent,
 Laudanum, (tincture of opium,)
 Lavender, compound,
 Manna,
 Magnesia, lump,
 Magnesia, calcined,
 Mercurial ointment,
 Morphine, sulphate.
 Musk,
 Mustard,
 Nutmegs,
 Nitric acid,
 Nitrate of silver, (lunar caustic,)
 Nitrate of potassa, (salt petre,)
 Opium,
 Opodeldoc,
 Oak bark,
 Paregoric elixir,
 Peppermint oil,
 Peppermint, essence,
 Pepper, Cayenne,
 Pepper, black,
 Pith of sassafras,

Rhubarb root,
 Rhubarb, powdered,
 Rosin,
 Rose water,
 Senna,
 Seidlitz powders,
 Soda powders,
 Soap liniment,
 Slippery elm bark,
 Spiced syrup of rhubarb,
 Spirits of camphor,
 Spirits of hartshorn, (aqua ammonia,)
 Syrup of squills,
 Sulphate of copper,
 " " magnesia, (Epsom salts,)
 " " quinine,
 " " iron,
 " " potassa,
 " " zinc,
 Sulphur, flour of
 Sulphuric ether,
 Super-carbonate of soda,
 Super-tartrate of potassa,
 (cream of tartar,)
 Sweet spirits of nitre,
 Sweet oil,
 Starch,
 Saltpetre,
 Sponge,
 Tapioca,
 Tooth brushes,
 Tartaric acid,
 Turpentine,
 Tartar emetic,
 Tamarinds,
 Valerian root, powdered,
 Wax, white,
 Wax, yellow,
 White vitriol,
 Wine bitters.

LIST OF INSTRUMENTS,

Necessary to be had in large establishments, and which ought always to be kept immediately at hand.

A pair of Apothecaries' Scales and Weights.

A Surgeon's Pocket Case, containing :—

- | | |
|----------------------|--------------------------------|
| 1 pair of Scissors, | 1 Spatula, |
| 2 Scalpels, | 1 Thumb Lancet, |
| 1 Straight Bistoury, | 2 Curved Surgeon's Needles, |
| 1 Curved Bistoury, | 1 Silver Female Catheter, |
| 1 Dressing Forceps, | 1 Cupping Syringe and Glasses, |
| 1 Silver Probe, | 1 Pint Injecting Syringe, |
| 1 Abscess Needle, | 1 Gill do. do. |
| 1 Gum Lancet, | 1 Female Syringe, |

Half a dozen of Gum Elastic Catheters, assorted.

One Spring Lancet, with one Thumb Lancet, in the same case.

Muslin, Linen, Buckskin, and Sheepskin.

Some good Sewing Silk, for Ligatures.

Two or three yards of Coarse Muslin for fractures, and two pieces of Tape, an inch wide.

Five yards of Domestic Muslin, torn into bandages from two to three fingers breadths in width, and rolled.

A piece of Cotton Wadding; some Patent Lint; one Mortar and Pestle; one Apothecaries' Spatulas; several Cedar Shingles, planed thin; a piece of half inch Pine Board, six feet long by two wide, or two pieces of half the width, smoothly planed.

These articles should be kept in a convenient place, that they may be always ready at hand when accidents happen.

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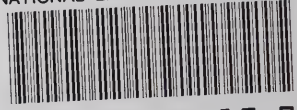
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